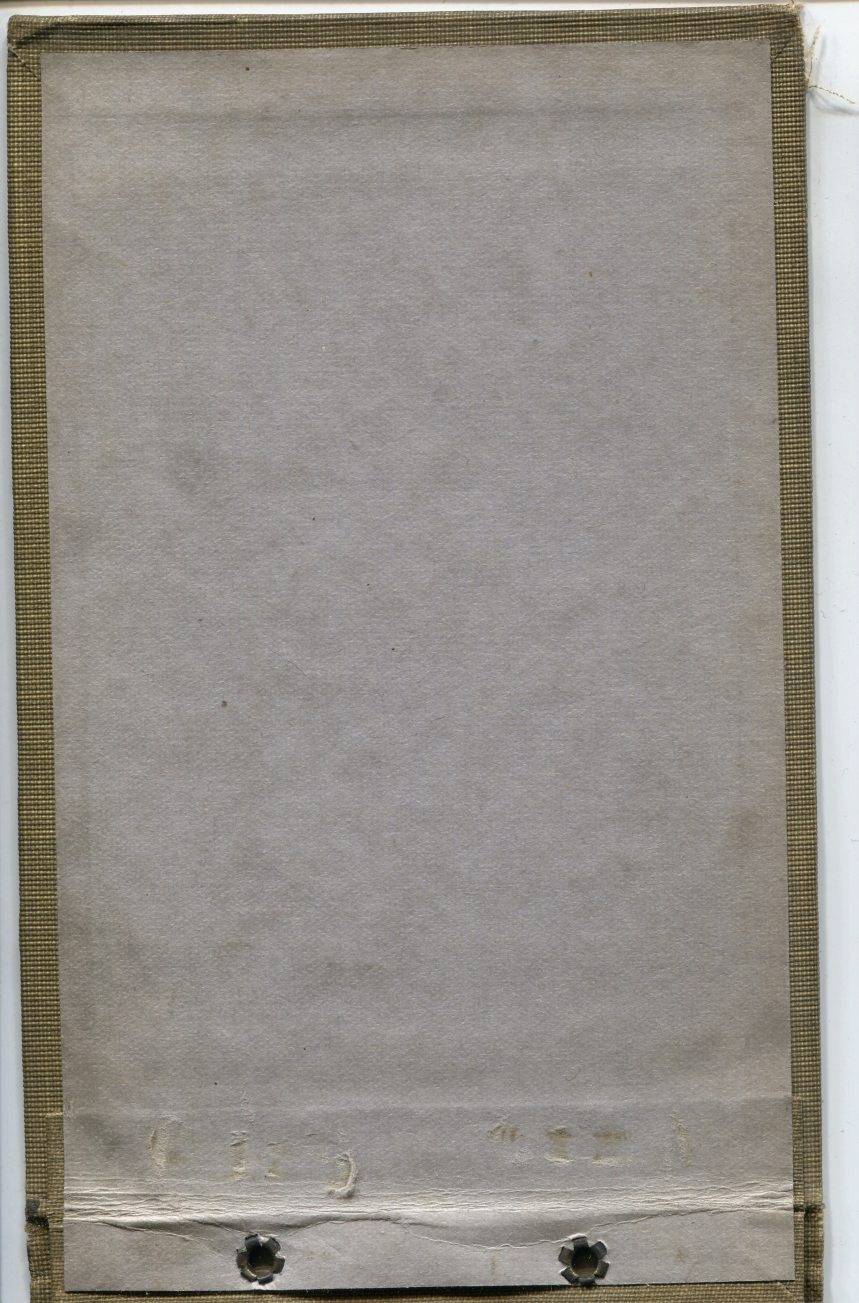


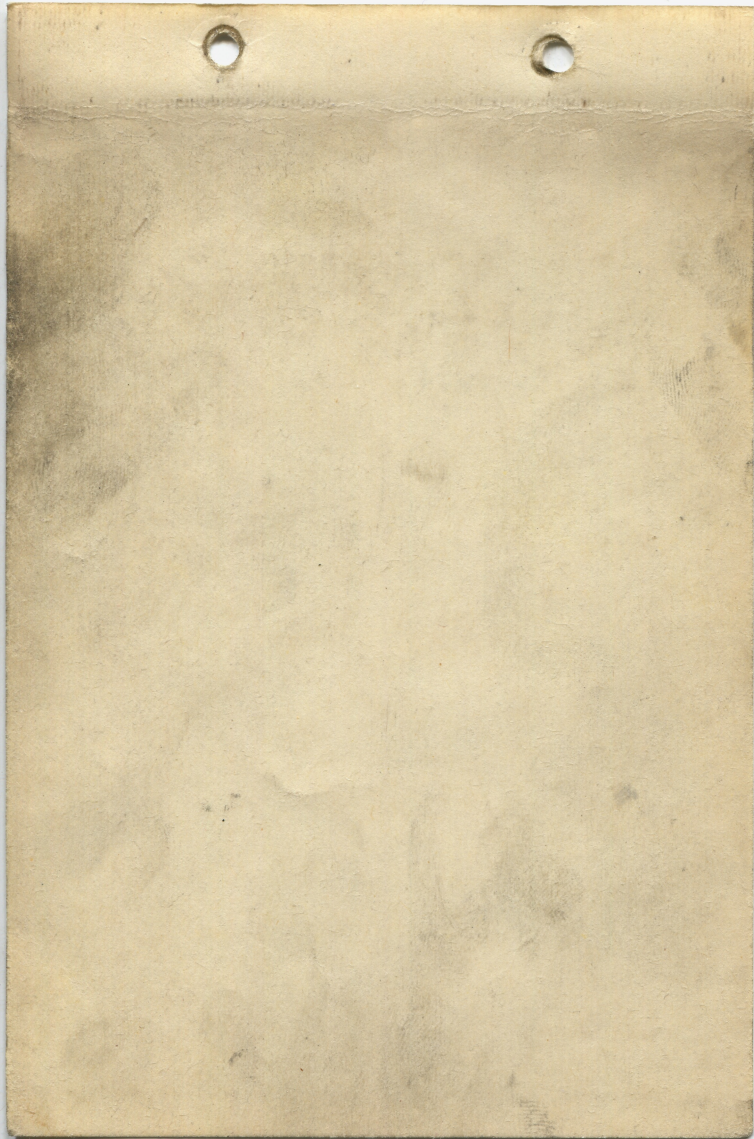
The Monotype

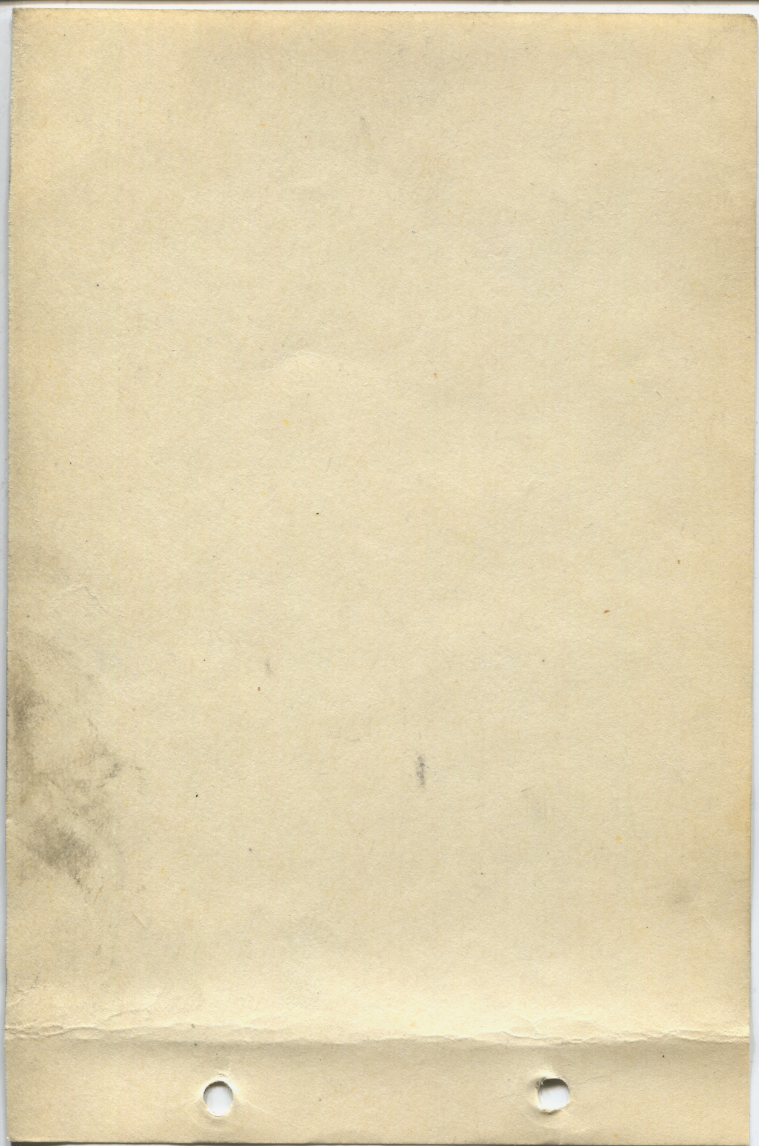
Parts and Accessories

Lansdon Monotype Machine Co.

Philadelphia, Pa.







The Monotype

PARTS AND ACCESSORIES

A LIST OF PARTS WITH PRICES
FOR
CASTING MACHINE AND KEYBOARD

AND
(herein lies the value of this book)

DIRECTIONS
WHICH, IF FOLLOWED, WILL INSURE
OUR CUSTOMERS RECEIVING
THE PARTS WANTED



Philadelphia, Pa.
LANSTON MONOTYPE MACHINE CO.
No. 1231 Callowhill Street

THE NEW YORK PUBLIC LIBRARY
ASTOR LENOX TILDEN FOUNDATION
1215 6TH AVENUE
NEW YORK 17, N.Y.

ALL BOOKS AVAILABLE
ON REQUEST WILL BE
MAILED TO YOU BY AIR
POSTAGE PAID
NEW YORK, N.Y.

THE NEW YORK PUBLIC LIBRARY
ASTOR LENOX TILDEN FOUNDATION
1215 6TH AVENUE
NEW YORK, N.Y.

THE NEW YORK PUBLIC LIBRARY
ASTOR LENOX TILDEN FOUNDATION
1215 6TH AVENUE
NEW YORK, N.Y.

DEDICATION

TO all Monotype users we dedicate this book, hoping that it will not only eliminate mistakes in filling orders, but also enable our early customers to bring their machines up to date.

Its "authors," sanguine men, are hopeful that you will read the directions in the following pages, for if these be not read they have "authored" in vain and this perpetual list of parts will not realize the ambitions of its creators and "fill a long-felt want."

DIRECTIONS

FOR convenience in symboling, the CASTING MACHINE is divided into eight groups of parts, these groups being lettered from A to H, inclusive. Each of these groups performs a different function; for example, the A group comprises the mechanism for carrying the MATRICES and holding the MATRIX over the opening in the MOLD while the type is being cast. Similarly, the KEYBOARD is divided into three groups, lettered KA, KB, and KC, respectively, each of which performs its separate function.

The groups are divided into sections, each section containing one or more pieces which, for convenience in ordering, are naturally grouped together. The different sections in each group are numbered from 1 up, this number being placed in front of the letter designating the group. The separate pieces in each section are numbered from 1 up on the Style D KEYBOARD list, while on the other lists the first piece in the section takes the section number and group letter only. The piece number is placed after the letter designating the group. Thus, referring to page 1 of the CASTING MACHINE list, the symbol of the BRIDGE LEG is 1A2. This denotes that it is piece number 2 in the first section of the A group.

For accuracy in manufacture, it is necessary, in some cases, to furnish two or more pieces together. Such pieces are indicated by a Roman figure 1, placed one em leader to the left of the right end of the leader line. While some of the major pieces cannot be furnished without their minor pieces, the minor pieces may often be furnished without the major pieces. In such cases, the major piece will have a Roman figure 1 one em leader to the left of the right end of the leader line, and the minor pieces will have an Italic figure (*1*) in parentheses in the same relative position. For example, referring to the A group of the CASTING MACHINE, the BRIDGE 1A and the BRIDGE LEG 1A2 cannot be furnished separately because the two are ground to proper bearing surface

after they are screwed together. The BRIDGE-LEG SCREWS 1A3 and 1A4 and the BRIDGE PIN 1A10 must always be furnished when the BRIDGE is ordered, but may be furnished separately if required; this is indicated by the *Italic* figure (1) in parentheses. The price of \$30.00 given on the same line with the BRIDGE 1A includes all the pieces that must be furnished with it, namely, the BRIDGE LEG 1A2, SCREWS 1A3 and 1A4, and PIN 1A10. Since the BRIDGE LEG cannot be furnished separately, no price is given for it, but a price is given for the SCREWS 1A3 and 1A4 and PIN 1A10, in case they should be required separately.

In some instances, a section contains two or more independent assembled parts, each of which is made up of pieces that must be furnished in combination, but any one of the assembled parts may be furnished independent of the others. To distinguish between these independent assembled parts, Roman and *Italic* figure 1's are used for the first part, figure 2's for the second part, etc.

In the case of the Style D KEYBOARD, an improvement has been made in listing the parts that must be furnished together, which, in conjunction with the system described above, works for clearness and accuracy. Each section containing parts that must be furnished assembled is followed by one or more notes which state clearly what pieces must be furnished together and gives the price of the assembled parts. To call attention to the note, the symbol of the major piece is altered by placing the letter K after the piece number, and the price is omitted. Since the minor pieces can be furnished separately, a price is given for them following their respective symbols in the section, but these prices are put in *Italic* to indicate that they are included in the price of the major piece given in the note below; therefore, in adding the prices of the individual pieces of a section to find the price of a complete section, omit all prices in *Italic*.

To order all of the pieces of an assembled part, it is necessary only to give the name of the major piece and its symbol (being careful to include the extra letter K which follows the piece number in the case of the Style D KEYBOARD). All the minor pieces will then be furnished assembled with the major piece. Do not specify the minor pieces in your order or an extra set of these will be sent in addition to the set assembled with the major piece.

To order all of the pieces of a section, it is necessary only to give the name of the main piece followed by its symbol and the

word (complete), as given on the last line of each section. In the case of the Style D KEYBOARD, be careful to include in the symbol of the complete section the cap X which is prefixed to the symbol.

When a piece is altered so that it is not interchangeable with the corresponding piece on previous machines without altering some other part of those machines, or when it is altered due to a change in its function, the symbol is modified to show this by placing a lower case letter in front of it. For the first change, the lower case a is used; for the second change, in the same piece, the lower case b, etc. It is imperative, therefore, when giving a symbol, to give it entire—without omitting any of the letters or figures.

To carry out the symboling system, it was necessary to select some group of machines as standard. When a piece of an earlier or a later machine differs from the corresponding piece of the standard machine, it is listed within a border immediately following the section containing the corresponding piece of the so-called standard machine. The whole section is not repeated in this border, but only the pieces which differ from those in the standard section. At the top of each of these border sections is given the numbers of the machines to which this improvement applies, and at the right of the line is given the improvement number. This improvement number refers to a correspondingly numbered sheet printed on blue paper and tipped in at the end of the price list. This blue sheet gives a complete list of all pieces required to apply this improvement; thus our earlier customers may keep their machines strictly up to date.

It is our fixed policy to make all improvements so that they can be applied to any earlier machine, and improvements made after this price list was compiled are printed on pink paper and inserted in the consecutive order of the improvement numbers. As new improvements are made, we will send each MONOTYPE user a pink insert containing a list of parts necessary to apply this improvement to previous machines. *In ordering parts, always look first at the pink sheets, as improvements made after this book was compiled are not listed in the body of the price list.*

Oct. 5, 1911

Supersedes sheet dated 1-24-10
headed "Summary."

SUMMARY

DON'T assume that you know how to use this Price List until you have read the directions and this summary. A few moments thus spent will save delays that are always annoying and usually costly.

First, determine the number of the machine for which the piece is required and state this number on your order.

Second, find the desired piece in the Price List and give its name and symbol accurately. Use the Plate Books in conjunction with this Price List.

Third, when a section in a border follows the section containing the piece desired, note from the number of your machine whether to order from the border section or from the standard section.

Fourth, if this improvement has not already been applied to the machine in question and if you desire to bring it up-to-date, see the blue sheet for this improvement and order all parts for "Improvement No. 10" for example. When you apply an improvement to one of your machines note on this improvement sheet the number of the machine and the date on which the change was made.

Fifth, if your copy of this Price List contains pink sheets always refer to them before making out your order.

LOAN MATERIAL

THE MONOTYPE has been well called "the always-busy-machine." Because of its flexibility, the ease with which it handles all classes of composition and its efficiency as a type caster, it eliminates "idle time."

We recognize that the stoppage of so important a part of a printing-office is a serious matter. We cannot build a machine that is proof against accidents, but we can and do use every effort to make repairs as quickly as possible.

As the principal expense for repairing highly productive machinery is not the cost of the parts required, but the time lost making repairs, we have arranged to reduce this time to the minimum by lending our customers parts for use while they return theirs to us.

To make this plan a success this loaned material must be returned to us promptly upon receipt of the repaired material. The loan of this material is an accommodation and its prompt return is necessary if other customers are to be accommodated. To put this in dollars and cents: We charge only a small fixed fee for the use of loan material, and then a daily rental for the detention of the loan material *after the receipt of the repaired material*.

The parts which we will loan together with the fixed fees and daily rental charges are as follows:

	Fixed Fee	Daily Rental
MOLD.....	\$6.00	\$1.50
CAM SHAFTS (pair).....	5.00	1.00
NORMAL WEDGE.....	1.00	.50
Regular Wedges; we cannot loan special Wedges.		

This daily rental begins on the day following the receipt of the repaired part by the customer. Therefore our material should be shipped back to us on the same day that the customer receives his own material. The customer pays transportation charges in both directions on loan material and on repaired material. All shipments of loan material must, of course, be made by express.

Corrections in Price List Monotype Parts and Accessories

October 1, 1911

To keep your copy of our Price List up to date, please make the following corrections NOW.

Casting Machine, page 3:

Change the symbol of CENTERING-PIN-STAND BUSHING from 6A5 to a6A5.

Casting Machine, page 12:

Strike out the TYPE-SUPPORT-SPRING-BAR STUD b31B3 (in the section inside the border), as this is made a part of the BAR c31B1.

Casting Machine, page 15:

Strike out the MOLD-BLADE-ABUTMENT-SLIDE-ANVIL DOWEL (2) 14C4, as these are no longer furnished.

Casting Machine, page 26:

Change the symbol of the BELT-SHIFTER-ARM SET SCREW from 2S2 to 2S3.

Casting Machine, page 34:

Change the price of the LOCKING-BAR-BELL-CRANK STUD b32E (in the section inside the border) from \$0.40 to \$0.35.

Casting Machine, page 35:

Strike out the LOCKING-BAR CAM a86E, as we no longer furnish this narrow CAM but furnish instead the wide CAM b86E (see Improvement No. 2).

Change the quantity of LOCKING-BAR-LEVER-LINK PIN 34E from (1) to (2).

Casting Machine, page 45:

Change the section beginning "WORM SHAFT" to read as follows:

WORM SHAFT.....	1..	80E	15.60
gear.....	(1) ..	80E1	4.50
hand wheel.....	(1) ..	80E2	5.00
key (for Worm).....	(1) ..	80E3	.05
" (long, for Gear and Hand Wheel).....	(1) ..	80E4	.05
nut.....		80E5	.11
worm.....	(1) ..	80E6	3.00
WORM SHAFT 80E (complete).....			15.71

Casting Machine, page 67:

Change the price of the PIPE BRACKET a16H as follows and note that the SCREEN a16H4 has been added:

PIPE BRACKET.....	a16H	2.50
screen.....	a16H4	.10
screw (large) (2).....	a16H1	.08
" (small).....	a16H3	.05
PIPE BRACKET a16H (complete).....		2.81

[Corrections, 1]

Casting Machine, page 69:

Strike out the PUMP-BODY LIFTING LEVER (Nozzle end) 26H, as this old style LIFTING LEVER can no longer be furnished. The STUD 26H1 and NUT 26H2 are, of course, still standard. When the improved PUMP-BODY LIFTING LEVER a26H is ordered, the PIN a26H3 and NUT a26H4 will always be furnished with it; this PIN and NUT may, however, be furnished separately if desired. Therefore, change the section inside the border to read as follows:

PUMP-BODY LIFTING LEVER (Nozzle end).....	1..a26H	3.25
pin (bearing for Pump Body).....	(1)..a26H3	.10
nut.....	(1)..a26H4	.04
PUMP-BODY LIFTING LEVER 26H (complete).....		3.72

Casting Machine, page 70:

Strike out the PUMP-BODY-SPRING-ROD-SLEEVE WASHER 31H12 and change the price of the PUMP-BODY SPRING 31H (complete) from \$8.70 to \$8.60.

Casting Machine, page 81:

Change the price of the NORMAL-WEDGE-LOCKING-PIN SPRING b14B8 from \$0.08 to \$0.20.

Casting Machine, page 84:

Add the following sentence to the last paragraph in the heading: "The BASE 1E must be drilled for the PIPES to pass out the rear near the floor and PIPE connections must be made to plumbing outside, instead of inside, the BASE."

Change the price of the PIPE BRACKET a16H (complete) from \$0.81 to \$2.81.

Casting Machine, page 88:

Strike out the LINE-HOOK-OPERATING-SLIDE-LATCH-LOCKING-PIN GUIDE PIN a23F3, as this piece is not furnished.

Casting Machine, page 100:

Change the price of the GALLEY-TRIP-ROD ARM a9D (complete) from \$1.25 to \$1.20.

Style D Keyboard, page 13:

Change the first NOTE following "UNIT-RACK STOP X31KB" to read as follows:

NOTE: 31KB3K is assembled with 31KB4, 31KB5, 31KB6, and 31KB8 to 31KB17, inclusive, and cannot be furnished without these parts. Price assembled..... 5.51

The Casting Machine

THE CASTING MACHINE

DECEMBER 1953

Charles M. Cline
1953



CASTING MACHINE PRICES

Complete List for Machines 103 and Following

A GROUP

Mechanism for carrying the Matrices and accurately positioning the proper Matrix over the opening in the Mold while the type is being cast.

BRIDGE.....	1..	1A	30.00
screw (2).....		1A1	.10
leg.....	1..	1A2	
" screw (side) (2).....	(1) ..	1A3	.06
" (top).....	(1) ..	1A4	.06
" spring post (for Fibre-stop Spring).....		1A5	.05
bushing (for Carrying-frame Guide Rod) (2).....		1A6	2.00
" nut (2).....		1A7	.45
" adjusting screw (front).....		1A8	.05
" (rear).....		1A9	.10
pin (for Fibre Stop).....	(1) ..	1A10	.05
BRIDGE 1A (complete).....			35.30

Bridge Bushing, for Centering Pin, see Centering-pin Stand 6A

Bridge-centering-pin-stand Adjusting Screw, see Centering-pin-stand Adjusting Screw 6A1

Bridge Fibre Stop, for Carrying Frame, see Fibre Stop... 7A

BRIDGE LEVER.....	a2A	1.75
connecting link.....	2A1	1.25
fulcrum rod.....	2A2	.15
" " forked eye.....	2A3	.60
" " nut (2).....	2A4	.05
" pin.....	2A5	.05
" cotter.....	2A6	.00
BRIDGE LEVER a2A (complete).....		3.90

For machines 103 to 501 inclusive order: Improvement No. 4

BRIDGE LEVER.....	2A	1.75
BRIDGE LEVER 2A (complete).....		3.90

Bridge-lever-connecting-link Stud, in Centering-pin Lever, see Centering-pin-lever Stud 16E4

For machines 103 to 501 inclusive equipped with		
Display-type Attachment order:	Improvement No. 13	
CENTERING-PIN SPRING (2).....	4S	.08
abutment (lower).....1..	4S1	2.70
" (upper).....	4S2	2.50
stud (2).....(1)..	4S3	.10
" nut (2).....	4S4	.04
" washer (2) ..	4S5	.03
CENTERING-PIN SPRING 4S (complete).....		5.50

For machines 502 and following equipped with		
Display-type Attachment order:	Improvement No. 13	
CENTERING-PIN SPRING (2).....	4S	.08
abutment (lower).....1..	a4S1	2.95
" (upper).....	a4S2	2.75
stud (2).....(1)..	4S3	.10
" nut (2).....	4S4	.04
" washer (2) ..	4S5	.03
CENTERING-PIN SPRING a4S (complete).....		6.00

Centering-pin Cam.....a13E

CENTERING-PIN STAND.....	6A	5.00
adjusting screw (right and left) (2)...	6A1	.05
" (front and rear) (2) ..	6A2	.05
bolt (2).....	6A3	.08
washer (2).....	6A4	.05
bushing.....	6A5	3.00
adjusting sleeve.....	6A6	.30
nut.....	6A7	.20
guide screw.....	6A8	.05
CENTERING-PIN STAND 6A (complete).....		9.01

Connecting Link, see Bridge-lever Connecting Link..... 2A1

Connecting-link Pin, for Bridge Lever, see Bridge-lever-link Pin..... 3A

Connecting-link Stud, see Centering-pin-lever Stud..... 16E4

Cover Plate, for Matrix Case, see Matrix-case Cover Plate.. 8A1

Cross Beam, see Carrying-frame-guide-rod Cross Beam... a4A6

Draw Rod, see Sliding-frame Draw Rod..... 9A1

Draw Rod, see Cross-slide Draw Rod 5C1

FIBRE STOP..... 7A .30

 spring..... 7A1 .05

FIBRE STOP 7A (complete)..... .35

Fibre-stop-spring Post, see Bridge-leg Spring Post, for
Fibre-stop Spring..... 1A5

Fibre-stop Pin, see Bridge Pin, for Fibre Stop..... 1A10

Guide Rod, see Carrying-frame Guide Rod..... 4A1

Guide-rod Cross Beam, see Carrying-frame-guide-rod Cross
Beam..... a4A6

Guide-rod Spring, see Carrying-frame Raising Spring... 4A12

Link Pin, see Bridge-lever-link Pin..... 3A

MATRIX CASE.....	1..	8A	7.50
cover plate.....	(1)...	8A1	2.50
" " screw (4).....	(1)...	8A2	.02
wire (15).....	(1)...	8A3	.02
" plate.....	(1)...	8A4	.30
" " screw (2).....	(1)...	8A5	.03
MATRIX CASE 8A (complete).....			7.50

Matrix-case Carrying Frame, see Carrying Frame..... 4A

For machines equipped with Display-type Attachment order:			
		Improvement No. 13	
MATRIX HOLDER, (for Sorts Matrices, 14 point and over).....	1..	14S	3.75
bushing (for Centering Pin).....	(1)...	14S1	.25
clamp (back).....	(1)...	14S2	.40
" (left).....	(1)...	14S3	.40
" (right).....	(1)...	14S4	.40
" spring (3).....	(1)...	14S6	.05
" screw (3).....	(1)...	14S7	.04
MATRIX HOLDER 14S (complete).....			3.75

For casting sorts, 12 point or under, on the style B mold, from matrices of the Display-type pattern order:			
MATRIX HOLDER (for Sorts Matrices, 12 point and under).....	1..	50S	3.75
bushing (for Centering Pin).....	(1)...	50S1	.25
clamp (back).....	(1)...	50S2	.40
" (left).....	(1)...	50S3	.40
" (right).....	(1)...	50S4	.40
" (spring) (3).....	(1)...	50S6	.05
" (screw) (3).....	(1)...	50S7	.04
MATRIX HOLDER 50S (complete).....			3.75

SLIDING FRAME.....	1..	a9A	12.00
draw rod.....		9A1	.70
" " clamp.....	1..	a9A2	
" " " screw (front).....	(1)...	a9A3	.05
" " " (rear).....	(1)...	9A4	.04
SLIDING FRAME 9A (complete).....			12.70

For machines 103 to 504 inclusive order:			
SLIDING FRAME draw rod clamp screw (front).....		9A3	.05

SLIDING-FRAME-DRAW-ROD CLAMP a9A2 is tapped in place on SLIDING FRAME a9A and cannot be furnished alone. Should new CLAMP be required return SLIDING FRAME to our Factory. Price for special CLAMP..... 1.50

B GROUP

Mechanism for moving the Matrix Case right and left, positioning the Normal and Justification Wedges and removing the type after it has been ejected from the Mold.

AIR PIN (14).....	1B	.20
spring (14).....	1B1	.05
AIR PIN 1B (complete) each.....		.25
AIR PIN (fixed, permanent stop for eighteen unit row)...	2B	.05
AIR-PIN BLOCK (front).....	3B	60.00
dowel (left).....	3B1	.05
“ (right).....	3B2	.05
screw (5-16" x 1 5-8 ") (2).....	3B3	.07
“ (5-16" x 15-16").....	3B4	.07
“ (1-4" x 1 7-16").....	3B5	.07
“ (1-4" x 1 1-4").....	3B6	.07
“ (1-4" x 7-8").....	3B7	.06
AIR-PIN BLOCK 3B (complete).....		60.51

For machines 1203 and following order: Improvement No. 3

AIR-PIN BLOCK.....	a3B	60.00
AIR-PIN BLOCK a3B (complete).....		60.51

Air-pin-block Cover Plate, see Air-pin Plate.....	4B	
Air-pin-block Shoe, for Matrix Jaw, see Matrix-jaw Shoe.....	8B	
Air-pin-block Shoe, for Type Carrier, see Type-carrier Shoe.....	23B	
Air-pin Jaw, see Pin Jaw.....	16B	

AIR-PIN PLATE.....	4B	3.00
dowel (2).....	4B1	.04
screw (4).....	4B2	.06
AIR-PIN PLATE 4B (complete).....		3.32

Fixed Pin, see Air Pin, fixed.....	2B	
Guide Rod, for Pin Jaw, see Pin-jaw Guide Rod.....	18B	
Justification Wedge.....	10D	
Locking Bar, see Matrix-jaw-stop-rack Locking Bar.....	a13B	
Locking Pin, for Normal Wedge, see Normal-wedge Locking Pin.....	a14B	
Locking-pin Stand, see Normal-wedge-locking-pin Stand.....	a15B	
Matrix Case.....	8A	

MATRIX JAW (left).....	5B	2.50
screw (for Tongs).....	5B1	.08
" cover.....	5B2	.08

MATRIX JAW 5B (complete)..... 2.66

For machines 1603 and following order:

MATRIX JAW screw cover..... a5B2 .08

To equip machines 103 to 1602 inclusive with this improved part requires that clearance for the COVER be cut in the end of the MATRIX JAW 5B.

MATRIX JAW (right).....	6B	2.25
screw (for Tongs).....	6B1	.08
" cover.....	6B2	.08

MATRIX JAW 6B (complete)..... 2.41

For machines 1603 and following order:

MATRIX JAW screw cover..... a6B2 .08

To equip machines 103 to 1602 inclusive with this improved part requires that clearance for the COVER be cut in the end of the MATRIX JAW 6B.

Matrix-jaw Cam, see Jaw-tongs Cam..... 23E
Matrix-jaw Draw Rod, see Sliding-frame Draw Rod..... 9A1

MATRIX-JAW LATCH (in 5B, for Normal Wedge).....1..	a7B	.75
pin.....(1).....	a7B1	.03
nut.....	7B3	.10
spring.....	a7B2	.05

MATRIX-JAW LATCH 7B (complete)..... .85

For machines 103 to 1702 inclusive when ordering a7B, a7B1 or a7B2 for the first time all three must be ordered together.

NOTE: The MATRIX-JAW-LATCH-PIN COTTER 7B2 can still be supplied for machines equipped with the old style LATCH.

MATRIX-JAW SHOE.....	8B	2.25
screw (top) (2).....	8B1	.07
" (rear).....	8B2	.07

MATRIX-JAW SHOE 8B (complete)..... 2.46

MATRIX-JAW-SHOE PACKING BLOCK (left, large).....	9B	1.50
clamp screw.....	9B1	.05
dowel.....	9B2	.04
screw.....	9B3	.07

MATRIX-JAW-SHOE PACKING BLOCK 9B (c'pl't). 1.66

MATRIX-JAW-SHOE PACKING BLOCK (left, small)..... 10B .35

MATRIX-JAW-SHOE PACKING BLOCK (right).....	11B	.60
bolt.....	11B1	.05
cover.....	11B2	.35
" screw.....	11B3	.05

MATRIX-JAW-SHOE PACKING BLOCK 11B (complete) 1.05

MATRIX-JAW STOP RACK (front).....a12B 3.50

For machines 103 to 320 inclusive, 322 to 501 inclusive and 503 to 519 inclusive order: Improvement No. 1

MATRIX-JAW STOP RACK.....12B 3.50

MATRIX-JAW-STOP-RACK LOCKING BAR (front).....a13B 2.00

bearing (for Lever)....a13B1 .35

" lock nut.....a13B2 .05

tube.....a13B3 .10

MATRIX-JAW-STOP-RACK LOCKING BAR a13B (c'pl't). 2.50

For machines 103 to 320 inclusive, 322 to 501 inclusive and 503 to 519 inclusive order: Improvement No. 1

MATRIX-JAW-STOP-RACK LOCKING BAR (front)..... 13B 2.00

bearing (for Lever)..... 13B1 .60

bolt..... 13B2 .08

tube..... 13B3 .15

MATRIX-JAW-STOP-RACK LOCKING BAR 13B (c'pl't). 2.83

Matrix-jaw-stop-rack-locking-bar Bell Crank (upper), see
Locking-bar Bell Crank.....a29E

Matrix-jaw-stop-rack-locking-bar Shoe, see Air-pin-block
Shoe, for Front Locking Bar.....a3D6

Matrix-jaw Tongs..... 37E

Micrometer Wedge..... 20D

Normal Wedge..... 21D

Normal-wedge Abutment..... 17C

Normal-wedge Latch, see Matrix-jaw Latch..... 7B

NORMAL-WEDGE LOCKING PIN.....a14B 2.00

adjusting nut..... 14B1 .05

" lock nut..... 14B2 .05

bushing.....a14B3 3.00

" adjusting sleeve..... 14B4 .30

" nut..... 14B5 .20

" guide screw.....a14B6 .05

shank.....a14B7 .20

spring.....a14B8 .15

" abutment (lower)..... 14B9 .08

" (upper)..... 14B10 .60

tube.....a14B11 .15

NORMAL-WEDGE LOCKING PIN a14B (c'pl't)..... 6.76

For machines 103 to 702 inclusive order: Improvement No. 11

NORMAL-WEDGE LOCKING PIN..... 14B 2.00

bushing guide screw.. 14B6 .05

For machines 103 to 501 inclusive order: Improvement No. 4

NORMAL-WEDGE LOCKING PIN shank..... 14B7 .20

spring..... 14B8 .08

tube..... 14B11 .15

For machines 963 and following order:	Improvement No. 4
NORMAL-WEDGE LOCKING PIN.....	b14B 2.00
spring.....	b14B8 .20

NORMAL-WEDGE-LOCKING PIN b14B (c'pl't).

Omit SPRING ABUTMENT (lower) 14B9 and TUBE a14B11.

To apply b14B to machines 103 to 962 inclusive order also b14B8 or shorten TUBE a14B11 to 1-4".

To apply b14B8 to machines 103 to 962 inclusive order also b14B and discard 14B9 and a14B11, or shorten a14B11 to 1-4" and discard 14B9.

For machines 103 to 1602 inclusive equipped with	Improvement No. 13
Display-type Attachment.	

NOTE: The NORMAL-WEDGE-LOCKING-PIN SHANK a14B7 has been lengthened on machines 1603 and following so that the regular NUTS 14B1 and 14B2 may be used when adjusting the NORMAL WEDGE to cast display type. The special ADJUSTING NUT 23S and its LOCK SCREW 23S1 will no longer be furnished. If one of these be required for a machine prior to number 1603 it will be necessary to order instead the new SHANK a14B7 and the regular NUTS 14B1 and 14B2.

Normal-wedge-locking-pin Cam, see Centering-pin Cam...a13E

NORMAL-WEDGE-LOCKING-PIN STAND.....	a15B	15.00
bolt (3-16" x 9-16").....	15B1	.05
dowel (2).....	15B2	.04
screw (1-4" x 7-8").....	15B3	.06
" (1-4" x 5-8").....	15B4	.06
" (3-16" x 5-8").....	15B5	.05
" (3-16" x 1-2").....	15B6	.05

NORMAL-WEDGE-LOCKING-PIN STAND a15B (c'pl't). 15.35

For machines 103 to 501 inclusive, when ordering	Improvement No. 11
Normal-wedge-locking-pin Stand a15B see	

Normal-wedge locking-pin-stand Spring, see Micrometer-wedge-adjusting-screw Spring.....a20D3

Normal-wedge-locking-pin-stand Spring Post, see Type-pusher-guiding-lever Spring Post.....30B3

Packing Block, see Matrix-jaw-shoe Packing Block.....9B

Pin Block, see Air-pin Block.....3B

PIN JAW (left).....	1..	16B	1.25
stud (for Tongs).....	(1) ..	16B1	.08
" nut.....		16B2	.04
" washer.....		16B3	.05
PIN JAW 16B (complete).....			1.34

PIN JAW (right).....	1..	17B	1.35
stud (for Tongs).....	(1) ..	17B1	.08
" nut.....		17B2	.04
" washer.....		17B3	.05
PIN JAW 17B (complete).....			1.44

<i>Pin-jaw Cam, see Jaw-tongs Cam</i>	23E	
PIN-JAW GUIDE ROD.....	18B	1.00
<i>Pin-jaw-guide-rod Stand (left), see Matrix-jaw-shoe Packing Block (left, large)</i>	9B	
<i>Pin-jaw-guide-rod Stand (right), see Normal-wedge-locking-pin Stand</i>	a15B	
PIN-JAW-GUIDE-ROD STOP.....	19B	.08
<i>Pin-jaw Stop, see Air Pin, fixed</i>	2B	
<i>Pin-jaw Tongs</i>	a55E	
<i>Shoe, see Matrix-jaw Shoe</i>	8B	
<i>Stop, see Pin-jaw-guide-rod Stop</i>	19B	
<i>Stop Rack, see Matrix-jaw Stop Rack</i>	a12B	
<i>Stop-rack Locking Bar, see Matrix-jaw-stop-rack Locking Bar</i>	a13B	
<i>Transfer-wedge Shifter</i>	55D	
<i>Transfer-wedge-shifter Bearing, see Normal-wedge-locking-pin Stand</i>	a15B	
TYPE CARRIER.....	1.. a20B	
abutment (for Type Support Spring) ..(1) ..	20B1	.10
" rivet.....(1) ..	20B2	.01
lever (for Type Support Spring) ..(1) ..	20B3	.50
" pin.....(1) ..	20B4	.02
shield.....(1) ..	20B5	.05
" screw (2).....(1) ..	20B6	.02
abutment (for Type-clamp Spring) ..(1) ..	a20B7	.10
TYPE CARRIER 20B (complete); includes the EYE 21B1, EYE PIN 21B3, DOWEL 21B4, TYPE CLAMP 26B (complete), TYPE-CLAMP SHOE 27B (complete) and TYPE SUPPORT SPRING a31B (complete) and cannot be furnished without them.....		
		25.00
For machines 1203 and following order: Improvement No. 3		
TYPE CARRIER (Universal).....	1.. b20B	
lever (for Type Support Spring)(1) ..	b20B3	2.00
" pin.....(1) ..	a20B4	.02
" stand.....(1) ..	a20B1	1.50
" rivet (2).....(1) ..	a20B2	.01
shield.....(1) ..	a20B5	.05
" screw (2).....(1) ..	20B6	.02
TYPE CARRIER b20B (complete), includes the EYE 21B1, EYE PIN 21B3, DOWEL 21B4, TYPE CLAMP a26B (complete), TYPE-CLAMP SHOE a27B (complete), and TYPE SUPPORT SPRING b31B (complete) and cannot be furnished without them.....		
		30.00
NOTE: For machines 1203 to 1482 inclusive when ordering LEVER b20B3 for the first time the SHOE a23B must be ordered also.		
TYPE-CARRIER CONNECTING ROD.....	21B	.15
forked eye (Carrier end).....1..	21B1	.75
" lock nut (L. H.).....	21B2	.05
" pin.....1..	21B3	

TYPE-CARRIER CONNECTING ROD—Continued

forked eye pin dowel.....(1)...	21B4	.03
" " (Cam Lever end).....	a21B5	1.00
" " lock nut.....	21B6	.05
" " pin.....	21B7	.07
" " cotter.....	21B8	.00
spring.....	21B9	.18
abutment.....	21B10	.20
sleeve.....	21B11	.25

TYPE-CARRIER CONNECTING ROD a21B (c'pl't)... 2.70

Type-carrier Cover Plate, see Type-clamp Shoe..... 27B

TYPE-CARRIER EXTENSION.....	22B	.15
lock nut.....	22B1	.05
sleeve.....	22B2	.25
" nut.....	22B3	.05
spring.....	22B4	.20

TYPE-CARRIER EXTENSION 22B (complete)..... .70

Type-carrier-extension Guide, see Type-carrier-spring-abutment Stand..... a25B

Type-carrier Pin, see Type-carrier-connecting-rod-forked-eye Pin..... 21B3

Type-carrier Shoe, see Type-clamp Shoe..... 27B

TYPE-CARRIER SHOE (long).....	23B	.50
screw (right and centre) (2).....	23B1	.06
" (left).....	23B2	.06

TYPE-CARRIER SHOE 23B (complete)..... .68

For machines 1203 and following order: Improvement No. 3

TYPE-CARRIER SHOE (long).....	a23B	1.50
TYPE-CARRIER SHOE a23B (complete).....		1.68

TYPE-CARRIER SHOE (short).....	24B	.25
screw (2).....	24B1	.06

TYPE-CARRIER SHOE 24B (complete)..... .37

For machines 1203 and following order: Improvement No. 3

TYPE-CARRIER SHOE (short).....	a24B	.25
TYPE-CARRIER SHOE a24B (complete).....		.37

TYPE-CARRIER-SPRING-ABUTMENT STAND.....	a25B	.95
screw (front) (2).....	25B1	.06
" (top).....	25B2	.06

TYPE-CARRIER-SPRING-ABUTMENT STAND a25B (complete)..... 1.13

For machines 103 to 501 inclusive and 503 to 519 inclusive order:

TYPE-CARRIER-SPRING-ABUTMENT STAND.....	25B	1.50
TYPE-CARRIER-SPRING-ABUTMENT STAND 25B (complete).....		1.50

TYPE CLAMP.....	26B	1.75
extension.....	26B1	.01
spring.....	26B2	.05

TYPE CLAMP 26B (complete)..... 1.81

For machines 1203 and following order: Improvement No. 3

TYPE CLAMP.....	a26B	2.25
extension.....	a26B1	.01
spring.....	a26B2	.05
TYPE CLAMP a26B (complete).....		2.31

TYPE-CLAMP SHOE.....	27B	.15
screw (5).....	27B1	.02

TYPE-CLAMP SHOE 27B (complete)..... .25

For machines 1203 and following order: Improvement No. 3

TYPE-CLAMP SHOE.....	a27B	.25
screw (4).....	a27B1	.02
TYPE-CLAMP SHOE a27B (complete).....		.33

TYPE-CLAMP TRIP.....	28B	.60
screw.....	28B1	.05

TYPE-CLAMP TRIP 28B (complete)..... .65

For machines 1203 and following order: Improvement No. 3

TYPE-PUSHER GUIDE.....	a28B	2.00
screw.....	28B1	.05
cover.....	a28B2	.15
screw (2).....	a28B3	.03
TYPE-PUSHER GUIDE a28B (complete).....		2.26

TYPE PUSHER.....	29B	6.00
blade.....	29B1	
" rivet (head end) (2).....	(1) 29B2	.01
" " (eye end, long).....	(1) 29B3	.01
" " (" " short).....	(1) 29B4	.01
eye.....	29B5	
" pin.....	29B6	.08
" cotter.....	29B7	.00

TYPE PUSHER 29B (complete)..... 6.08

For machines 1203 and following order: Improvement No. 3

TYPE PUSHER.....	a29B	6.00
TYPE PUSHER a29B (complete).....		6.08

Type-pusher Guide, see Type-clamp Trip..... 28B

TYPE-PUSHER GUIDING LEVER.....	30B	.75
fulcrum screw.....	30B1	.05
spring.....	30B2	.05
" post.....	30B3	.04

TYPE-PUSHER GUIDING LEVER 30B (complete)..... .89

§ For machines 1203 and following omit 30B (complete). §

Type-pusher-guiding-lever Stand, see Normal-wedge-locking-pin Stand.....a15B

TYPE SUPPORT SPRING.....(1)...	31B	.08
bar.....1..	a31B1	.70
" rivet(2).....(1)...	31B2	.01
" stud.....(1)...	a31B3	.03
" spring.....	31B6	.05
TYPE SUPPORT SPRING a31B (complete).....		.75

When TYPE SUPPORT SPRING a31B (complete) is ordered for machines 103 to 522 inclusive the TYPE CARRIER must be drilled and tapped for special TYPE-CARRIER STOP SCREW a20B8 and this SCREW ordered.

TYPE-CARRIER STOP SCREW (special).....	a20B8	.05
--	-------	-----

For machines 1203 and following order: Improvement No. 3

TYPE SUPPORT SPRING.....(1)...	a31B	.08
bar.....1..	c31B1	.75
" rivet (2).....(1)...	31B2	.01
" spring.....	a31B6	.05
" stud.....(1)...	b31B3	.03
" yoke.....	a31B4	.75
TYPE SUPPORT SPRING b31B (complete).....		1.55

Note: When ordering BAR c31B for the first time for machines 1203 to 1789 inclusive the hole in the Yoke a31B4 must be opened out to receive it.

<i>Type-support-spring-bar Lever, see Type-carrier Lever, for</i>	
<i>Type Support Spring.....</i>	20B3
<i>Type-support-spring-bar-spring Abutment, see Type-Carrier Abutment, for Type Support Spring.....</i>	20B1
<i>Wedge, see Justification Wedge.....</i>	10D
<i>Wedge, see Micrometer Wedge.....</i>	20D
<i>Wedge, see Normal Wedge.....</i>	21D

C GROUP

Mechanism for moving the Matrix Case forward and back; drawing the Mold Blade back for the proper size type and ejecting the type from the Mold.

<i>Abutment Slide, for Mold Blade, see Mold-blade Abutment Slide</i>			14C	
AIR PIN (14).....	1C	.20		
spring (14).....	1C1	.05		
AIR PIN 1C (complete), each.....		.25		
AIR PIN (fixed, permanent stop for bottom row).....	2C	.05		
AIR-PIN BLOCK (rear).....	3C	50.00		
dowel (No. 6 x 2 1-2").....	3C1	.05		
" (No. 6 x 2").....	3C2	.05		
" (No. 5 x 1 1-4").....	3C3	.04		
screw (5-16" x 1 5-8") (2).....	3C4	.07		
" (5-16" x 2 1-2") (2).....	3C5	.09		
" (1-4" x 5-8") (2).....	3C6	.06		
AIR-PIN BLOCK 3C (complete).....		50.58		
~~~~~ For machines 1003 and following order: ~~~~~				
AIR-PIN BLOCK stud (stop for 16C7).....	a3C7	.05		
~~~~~				
<i>Air-pin-block Abutment, see Normal-wedge Abutment</i>	17C			
<i>Air-pin-block Shoe, see Cross-slide-extension Shoe</i>	6C			
<i>Air-pin-block Stand, for Guide Rod, see Pin-jaw-guide-rod Stand</i>	22C			
<i>Air-pin-block Stop, for Matrix Jaw, see Matrix-jaw Stop</i> ..	a10C			
<i>Air-pin Jaw, see Pin Jaw</i>	18C			
AIR-PIN PLATE.....	a4C	3.00		
dowel (2).....	4C1	.04		
screw (4).....	4C2	.06		
AIR-PIN PLATE a4C (complete).....		3.32		
~~~~~ When ordering AIR-PIN PLATE a4C for machines 103 to 702 inclusive order also MATRIX-JAW STOP a10C (complete). ~~~~~				
CROSS SLIDE.....	1.. a5C	8.00		
draw rod.....	5C1	.60		
" clamp screw.....	(1).. a5C2	.06		
extension.....	1.. 5C3			
" rivet (2).....	(1).. 5C4	.05		
plate (bearing for Matrix Case).....	(1).. 5C5	.65		
" screw (3).....	(1).. 5C6	.04		
CROSS SLIDE a5C (complete).....		8.60		

[Casting Machine] 13



For machines 103 to 543 inclusive order:

Cross Slide draw rod clamp screw.....	5C2	.05
CROSS-SLIDE-EXTENSION SHOE.....	1..	6C 1.50
screw (small) (4).....	6C1	.05
spring post.....(1) ..	6C2	.04
CROSS-SLIDE-EXTENSION SHOE 6C (complete) ..		1.70
Cross-slide-extension-shoe Screw (large), see Air-pin-block Screw.....	3C5	
CROSS-SLIDE GUIDE.....	7C	5.00
cover plate.....	7C1	.40
screw (4).....	7C2	.05
CROSS-SLIDE GUIDE 7C (complete).....		5.60
Draw Rod, see Cross-slide Draw Rod.....	5C1	
Draw Rod, see Sliding-frame Draw Rod.....	9A1	
Fibre Stop, for Pin Jaw, see Pin-jaw-guide-rod Fibre Stop.....	21C	
Fixed Pin, see Air Pin, fixed.....	2C	
Guide Rod, see Pin-jaw Guide Rod.....	20C	
Guide-rod Stand, see Pin-jaw-guide-rod Stand.....	22C	
Justification-wedge Cover, see Wedge Cover.....	24C	
Locking Bar, see Matrix-jaw-stop-rack Locking Bar.....	a13C	
Matrix Case.....	8A	
Matrix-case Cross Slide, see Cross Slide.....	a5C	
MATRIX JAW (front).....	8C	1.40
screw (for Tongs).....	8C1	.08
cover.....	8C2	.08
MATRIX JAW 8C (complete).....		1.56
MATRIX JAW (rear).....	9C	1.40
screw (for Tongs).....	9C1	.08
cover.....	9C2	.08
MATRIX JAW 9C (complete).....		1.56
Matrix-jaw Cam, see Jaw-tongs Cam.....	23E	
Matrix-jaw Draw Rod, see Cross-slide Draw Rod.....	5C1	
MATRIX-JAW STOP (front).....	a10C	.30
rivet (2).....	a10C1	.02
MATRIX-JAW STOP a10C (complete).....		.34

For machines 103 to 702 inclusive when ordering for the first time a10C or a10C1, both of these parts must be ordered. On machines 103 to 501 inclusive file a seat on the AIR-PIN PLATE 4C to receive the this new STOP a10C and drill holes in the PLATE to receive the RIVETS a10C1.

MATRIX-JAW STOP (rear).....	11C	.45
screw (2).....	11C1	.07
MATRIX-JAW STOP 11C (complete).....		.59

MATRIX-JAW STOP RACK (rear).....	a12C	3.00
----------------------------------	------	------

For machines 103 to 320 inclusive, 322 to 501 inclusive and 503 to 742 inclusive order:		
MATRIX-JAW STOP RACK (rear).....	12C	3.00

MATRIX-JAW-STOP-RACK LOCKING BAR (rear).....	a13C	1.60
bearing (for Lever).....	a13C1	.50
lock nut.....	a13C2	.06

MATRIX-JAW-STOP-RACK LOCKING BAR a13C (c'pl't).	2	16
-------------------------------------------------	---	----

For machines 103 to 320 inclusive, 322 to 501 inclusive and 503 to 519 inclusive order:		
MATRIX-JAW-STOP-RACK LOCKING BAR (rear).....	13C	1.60
bearing (for Lever).....	13C1	.40
bolt.....	13C2	.35
tube.....	13C3	.15
MATRIX-JAW-STOP-RACK LOCKING BAR 13C (c'pl't).		2.50

For machines 520 to 742 inclusive order:		
MATRIX-JAW-STOP-RACK LOCKING BAR (Special)....	a13C	1.60

Matrix-jaw-stop-rack-locking-bar Bell Crank, see Locking-bar Bell Crank.....	a28E	
Matrix-jaw-stop-rack-locking-bar Guide Screw, see Air-pin-block Guide Screw, for rear Locking Bar.....	a3D11	
Matrix-jaw Tongs.....	37E	

MOLD-BLADE ABUTMENT SLIDE.....	14C	10.00
adjusting screw.....	(1) 14C1	.30
lock screw.....	(1) 14C2	.10
anvil.....	(1) 14C3	1.25
dowel (2).....	(1) 14C4	.03
plunger.....	(1) 14C5	.35
spring (3).....	(1) 14C6	.05
screw (2).....	(1) 14C7	.03
spring post.....	(1) 14C8	.03

MOLD-BLADE ABUTMENT SLIDE 14C (complete)		10.00
------------------------------------------	--	-------

Mold-blade-abutment-slide Cover Plate, see Cross-slide-guide Cover Plate.....	7C1	
-------------------------------------------------------------------------------	-----	--

MOLD-BLADE-ABUTMENT-SLIDE SPRING.....	15C	.06
---------------------------------------	-----	-----

Mold-blade-abutment-slide Spring Post, in Cross-slide-extension Shoe, see Cross-slide-extension-shoe Spring Post.....	6C2	
Mold-blade-abutment-slide Spring Post.....	14C8	



MOLD-BLADE OPERATING ROD.....	16C	1.00
distance sleeve (between Spring Abut's) ..	16C1	.15
ejecting spring (2).....	16C2	.18
"        "        abutment.....	16C3	.25
"        "        sleeve.....	16C4	.25
fork.....	16C5	2.00
"        pin.....	16C6	.50
"        "        spring.....	16C7	.10
"        "        screw (2).....	16C8	.03
nut.....	16C9	.05
sizing spring.....	16C10	.20
"        "        sleeve (inside).....	16C11	.15
"        "        "        (outside).....	16C12	.15
"        "        abutment (front).....	16C13	.15
"        "        "        (rear).....	16C14	.15
MOLD-BLADE OPERATING ROD 16C (complete).....		5.52

For machines 941 and following order:

Improvement No. 3

MOLD-BLADE OPERATING ROD distance sleeve.....	a16C1	.15
sizing spring sleeve		
(inside).....	a16C11	.15

These parts are interchangeable if ordered together for machines 103 to 940 inclusive.

Normal Wedge.....	21D	
-------------------	-----	--

NORMAL-WEDGE ABUTMENT (on rear Air-pin Block)....	17C	1.50
dowel (2).....	17C1	.03
screw (2).....	17C2	.05

NORMAL-WEDGE ABUTMENT 17C (complete)...	1.66
-----------------------------------------	------

Pin Block, see Air-pin Block.....	3C	
-----------------------------------	----	--

PIN JAW (front).....	1.. 18C	1.35
stud (for Tongs).....(1) ..	18C1	.08
"        nut.....	18C2	.04
"        washer.....	18C3	.05

PIN JAW 18C (complete).....	1.44
-----------------------------	------

PIN JAW (rear).....	1.. 19C	1.25
stud (for Tongs).....(1) ..	19C1	.08
"        nut.....	19C2	.04
"        washer.....	19C3	.05

PIN JAW 19C (complete).....	1.34
-----------------------------	------

Pin-jaw Cam, see Jaw-tongs Cam..... 23E

Pin-jaw Fibre Stop, see Pin-jaw-guide-rod Fibre Stop.... 21C

PIN-JAW GUIDE ROD.....	20C	.90
------------------------	-----	-----

PIN-JAW-GUIDE-ROD FIBRE STOP.....	21C	.02
-----------------------------------	-----	-----

PIN-JAW-GUIDE-ROD STAND (front).....	22C	.90
nut.....	22C1	.05

PIN-JAW-GUIDE-ROD STAND 22C (complete)....	.95
--------------------------------------------	-----

PIN-JAW-GUIDE-ROD STAND (rear).....	1.. 23C	1.00
clamp screw.....	(1).. 23C1	.05
nut.....	23C2	.05
PIN-JAW-GUIDE-ROD STAND 23C (complete)....		1.05

Pin-jaw Tongs.....	56E	
Pin-jaw Stop, for bottom row, see Air Pin, fixed .....	2C	
Stop Rack, see Matrix-jaw Stop Rack.....	a12C	
Transfer-wedge Abutment, see Normal-wedge Abutment .....	17C	
Transfer-wedge Cover, see Wedge Cover.....	24C	

WEDGE COVER.....	24C	.30
screw.....	24C1	.03
WEDGE COVER 24C (complete).....		.33



## D GROUP

Mechanism for bringing the Space Transfer Wedge into position when casting justifying spaces; disconnecting the Pump while the Justification Wedges are shifted and starting the Galley mechanism into action.

AIR PIN (justification, right and left) (2).....	1D	.25
AIR PIN (space, central).....	2D	.25
AIR-PIN BLOCK (justification).....	3D	20.00
cover plate.....	3D1	1.00
"        "        screw.....	3D2	.05
"        (long) (2).....	3D3	.05
dowel (2).....	3D4	.04
screw (4).....	3D5	.07
shoe (for front Locking Bar).....	a3D6	.35
"        screw (2).....	a3D7	.05
stud (for front Pin-jaw Tongs).....	3D8	.10
"        nut.....	3D9	.05
"        washer.....	3D10	.05
guide screw (for rear Locking Bar).....	a3D11	.08
AIR-PIN BLOCK 3D (complete).....		22.24

For machines 103 to 320 inclusive and 322 to 501

inclusive order:

Improvement No. 1

AIR-PIN BLOCK shoe (for front Locking Bar).....	3D6	.35
"        screw (2).....	3D7	.05

Parts a3D6 and a3D7 may be applied to these machines if furnished together when ordered for the first time.

For machines 923 and following order:

AIR-PIN BLOCK .....	a3D	20.00
set screw (for Fulcrum Pin 7D)....	a3D12	.03

To equip machines 103 to 922 inclusive with BLOCK a3D, the SET SCREW a3D12 must also be ordered. If a3D12 be ordered alone for machines 103 to 922 inclusive the AIR-PIN BLOCK 3D must be drilled and tapped for this SCREW.

<i>Air-pin-block Centering Tooth, for Justification Wedge, see Justification-wedge Centering Tooth.....</i>	12D
<i>Air-pin-block Plate, for Lifting-arm Spring, see Justification-wedge-lever-arm-spring Plate.....</i>	17D
<i>Air-pin-block Tongs Stud, for Matrix Jaws, see Matrix-jaw-tongs Stud (rear).....</i>	40E

BELL CRANK (centre, for Lever Arm for Transfer-wedge Shifter).....	4D	1.00
abutment screw (for Air Pin).....	4D1	.03
" lock nut.....	4D2	.04
stop screw.....	4D3	.03
" lock nut.....	4D4	.04
BELL CRANK 4D (complete).....		1.14
BELL CRANK (left, for Lever Arm for .0075" Wedge).....	5D	1.00
abutment screw (for Air Pin).....	5D1	.03
" lock nut.....	5D2	.04
stop screw.....	5D3	.03
" lock nut.....	5D4	.04
BELL CRANK 5D (complete).....		1.14
BELL CRANK (right, for Lever Arm for .0005" Wedge)....	6D	1.00
abutment screw (for Air Pin).....	6D1	.03
" lock nut.....	6D2	.04
stop screw.....	6D3	.03
" lock nut.....	6D4	.04
BELL CRANK 6D (complete).....		1.14
Bell Crank Lever, see Justification-wedge Lever.....	13D	
Bell Crank Lever, see Transfer-wedge-shifter Lever.....	56D	
Centering Tooth, see Justification-wedge Centering Tooth..	12D	
BELL-CRANK FULCRUM PIN.....	7D	.05
cotter.....	7D1	.00
BELL-CRANK FULCRUM PIN 7D (complete).....		.05
GALLEY TRIP ROD.....	8D	.25
nut.....	8D1	.05
GALLEY TRIP ROD 8D (complete).....		.30
GALLEY-TRIP-ROD ARM.....	9D	.75
rock lever.....	9D1	.35
" fulcrum pin.....	9D2	.06
" nut.....	9D3	.04
GALLEY-TRIP-ROD ARM 9D (complete).....		1.20
Guide Block, for Locking-bar Operating Rod, see Justification-wedge Stop Block.....	19D	
Guide Block, see Transfer-wedge-operating-rod Guide.....	54D	
JUSTIFICATION WEDGE (front or .0075").....	10D	5.00
JUSTIFICATION WEDGE (rear or .0005").....	11D	5.00
+++++ For machines equipped with Display-type Attachment order: Improvement No. 13 +++++		
JUSTIFICATION WEDGE (for varying sizes cast with Normal Wedge 47S by 1-8 points)..	46S	5.00
gage.....	46S1	.75
JUSTIFICATION WEDGE 46S (complete).....		5.75





Jan. 24,  
1910

Supersedes undated sheet of  
Monotype Parts and Accessories  
folioed [Casting Machine] 21-22

MICROMETER WEDGE.....	20D	2.50
adjusting screw.....	a20D2	.25
"        "    spring.....	a20D3	.08
"        "    screw (2).....	20D4	.03
shank.....	a20D1	.10
"    nut.....	a20D5	.04
"    lock nut (discarded).....		
"    spring.....	20D7	.05
MICROMETER WEDGE a20D (complete).....		3.08

For Machines 103 to 501 inclusive order:		Improvement No. 8
MICROMETER WEDGE adjusting nut.....	20D2	.25
"        "    spring.....	20D3	.08
shank.....	20D1	.25
"    nut.....	20D5	.04
"    lock nut.....	20D6	.04
MICROMETER WEDGE 20D (complete).....		3.27

Micrometer-wedge Stand, see Normal-wedge-locking-pin  
Stand.....a15B

NORMAL WEDGE (Regular, any Set).....21D 7.50

If a regular NORMAL WEDGE 21D becomes worn so  
that it does not give the correct width type bodies in all  
positions, it should be returned to our factory to be re-  
scraped and tested.

Price for re-scraping and testing.....2.50

NORMAL WEDGE (Tabular, any Set).....22D 10.00

If a tabular NORMAL WEDGE 22D becomes worn so  
that it does not give the correct width type bodies in all  
positions, it should be returned to our factory to be re-  
scraped and tested.

Price for re-scraping and testing.....3.50

For machines equipped with Display-type Attach-		Improvement No. 13
ment order:		
NORMAL WEDGE.....	1.. 47S	5.00
gage.....	47S1	.60
handle.....	(1) 47S2	.20
packing piece.....	2.. 47S3	1.50
"    pin.....	2.. 47S4	
NORMAL WEDGE 47S (complete).....		7.10

NOTE: The old style NORMAL WEDGES 17S to 20S inclusive  
are no longer furnished.

Normal-wedge Abutment.....17C

Normal-wedge Jaw, see Matrix Jaw.....5B

Normal-wedge Locking Pin.....a14B

Operating-rod Guide, see Transfer-wedge-operating-rod  
Guide.....54D



<i>Pin Block (justification), see Air-pin Block (justification)</i>	a3D	
<i>Pin Plate, see Air-pin-block Cover Plate</i>	3D1	
<i>Pump Trip (hand)</i>	35H	
PUMP-TRIP OPERATING LEVER (2)	1.. 48D	.90
fulcrum pin	48D1	.08
" " cotter	48D2	.00
separating pin (2) (I)	48D3	.02
PUMP-TRIP OPERATING LEVER 48D (complete)		.98
<i>Pump-trip-operating-lever Stand, see Air-pin Block</i>	3D	
PUMP-TRIP TUBE	1.. a49D	.80
collar	49D1	.35
set screw	49D2	.06
spring post	(I) 49D3	.03
PUMP-TRIP TUBE a49D (complete)		1.21
For machines 103 to 534 inclusive when ordering:		
PUMP-TRIP TUBE	a49D	.80
order also,		
PUMP TRIP ROD COTTER	a35H10	.00
and drill the rear end of the PUMP-TRIP ROD, where it projects through the MAIN STAND, to receive this COTTER.		
PUMP-TRIP SPRING	50D	.12
plate (2)	50D1	.03
PUMP-TRIP SPRING 50D (complete)		.18
PUMP-TRIP-TUBE SPRING POST (in Main Stand)	51D	.03
<i>Pump-trip-tube Spring Post, in Pump-trip Tube</i>	49D3	
<i>Set Normal Wedge, see Normal Wedge</i>	21D	
<i>Space Lifting Arm, see Transfer-wedge-shifter-lever Arm</i>	57D	
SPACE TRANSFER WEDGE	52D	3.50
adjusting screw	52D1	.75
" lock nut	52D2	.05
SPACE TRANSFER WEDGE 52D (complete)		4.30
For machines 1013 and following order:		
SPACE TRANSFER WEDGE	a52D	3.50
SPACE TRANSFER WEDGE a52D (complete)		4.30
See note after a53D (complete).		
<i>Space-transfer-wedge Abutment, see Air-pin Block</i>	3C	
SPACE-TRANSFER-WEDGE OPERATING ROD	1.. 53D	2.00
nut	53D1	.04
" lock nut	53D2	.04
washer (rawhide)	53D3	.05
yoke	(I) 53D4	2.5
SPACE-TRANSFER-WEDGE OPERATING ROD 53D (c'pl't).		2.13

[Casting Machine] 22

**For machines 1013 and following order:**

SPACE-TRANSFER-WEDGE OPERATING ROD yoke.....	a53D4	.25
SPACE-TRANSFER-WEDGE OPERATING ROD		
a53D (complete).....		2.13

NOTE: To equip machines 103 to 1012 inclusive with the improved parts a52D and a53D4 requires that both these parts be ordered together and that clearance for the YOKE be cut in the TYPE PUSHER 29B and the AIR-PIN BLOCK 3C.

Space-transfer-wedge-operating-rod Crosshead, see Transfer-tongs-space-wedge-lever Crosshead.....	59D10
Space-transfer-wedge-operating-rod Guide, see Transfer-wedge-operating-rod Guide.....	54D
Space-transfer-wedge-operating-rod Shifter, see Transfer-wedge Shifter.....	55D
Space-transfer-wedge Tongs, see Transfer Tongs.....	59D
Tabular Wedge, see Normal Wedge, Tabular, any Set....	22D

**TRANSFER TONGS**

cam lever extension.....	1..	59D1	
lower connecting link (2).....	1..	59D2	
"                    " bushing (2).....	1..	59D3	
upper connecting link (2).....	1..	59D4	
"                    " pin (in 59D1).....	1..	59D5	
"                    " separating block.....	1..	59D6	
"                    "                    " bushing.....	1..	59D7	
"                    "                    " rivet (2) 1..		59D8	
space wedge lever (2).....	1..	59D9	
"                    " crosshead.....	1..	59D10	
"                    " eye (on Spring-box Rod).....	1..	59D11	
"                    " separating pin (3).....	1..	59D12	
type wedge lever (2).....	1..	59D13	
"                    " bolt (for Link 59D4).....	(1) ..	59D14	.07
"                    " bolt nut.....	(1) ..	59D15	.05
"                    " crosshead.....	1..	59D16	
"                    " separating pin(2).....	1..	59D17	

TRANSFER TONGS 59D (complete)..... 20.00

We cannot furnish separate parts of these TONGS.

Instead we exchange repaired TONGS for worn TONGS.

Price for exchange..... 7.50

Transfer-tongs-space-wedge-lever-eye Lock Nut, see Transfer-wedge-spring-box Lock Nut.....	60D10
Transfer Wedge, see Space Transfer Wedge.....	52D
Transfer Wedge, see Type Transfer Wedge.....	62D
Transfer-wedge Abutment, see Normal-wedge Abutment....	17C
Transfer-wedge Cam.....	a69E

TRANSFER-WEDGE-OPERATING-ROD GUIDE.....	54D	2.75
cap.....	54D1	.15
" screw (2).....	54D2	.03
screw (2).....	54D3	.06
TRANSFER-WEDGE-OPERATING-ROD GUIDE 54D (c'pl't) ..		3.08



TRANSFER-WEDGE SHIFTER.....	55D	1.50
spring (inside).....	55D1	.08
" (outside).....	55D2	.09
" abutment (lower)....	55D3	.15
" " (upper)....	55D4	.15
nut.....	55D5	.05
TRANSFER-WEDGE SHIFTER 55D (complete)....		2.02
<i>Transfer-wedge-shifter Bearing, see Normal-wedge-locking-pin Stand.....</i>	a15B	
TRANSFER-WEDGE-SHIFTER LEVER.....	56D	.80
fulcrum screw.....	56D1	.10
TRANSFER-WEDGE-SHIFTER LEVER 56D (c'pl't).....		.90
<i>Transfer-wedge-shifter-lever Stand, see Normal-wedge-locking-pin Stand.....</i>	a15B	
<i>Transfer-wedge-shifter-lever Pin, see Transfer-wedge-shifter-lever-arm Fulcrum Pin.....</i>	57D3	
TRANSFER-WEDGE-SHIFTER-LEVER ARM.....	57D	.70
adjusting nut.....	57D1	.08
" lock nut.....	57D2	.04
fulcrum pin (for Lever).....	57D3	.02
rod.....	57D4	.10
TRANSFER-WEDGE-SHIFTER-LEVER ARM 57D (c'pl't).....		.94
<i>Transfer-wedge-shifter-lever-arm Bell Crank, see Bell Crank</i>	4D	
TRANSFER-WEDGE-SHIFTER-LEVER-ARM SPRING.....	58D	.05
<i>Transfer Tongs.....</i>	59D	
<i>Transfer-wedge-shifter-lever-arm Plate, see Centering-pin-lever Plate.....</i>	16E2	
<i>Transfer-wedge-shifter-lever-arm Spring Plate, see Justification-wedge-lever-arm-spring Plate.....</i>	17D	
TRANSFER-WEDGE SPRING BOX		
tube.....	60D1	.70
cap.....	60D2	.30
forked eye.....	60D3	.50
" " pin.....	60D4	.05
" " cotter (2).....	60D5	.00
rod.....	60D6	.20
" head.....	60D7	
" adjusting nut (for Springs).....	60D8	.05
" " lock nut.....	60D9	.05
lock nut (for Transfer-tongs Eye).....	60D10	.05
spring abutment (2).....	60D11	.06
" (inside).....	60D12	.20
" (outside).....	60D13	.20
TRANSFER-WEDGE SPRING BOX 60D (complete)		2.42
<i>Transfer-wedge-spring-box-rod Eye, see Transfer-tongs-space-wedge-lever Eye.....</i>	59D11	

TRANSFER-WEDGE-SPRING-BOX STAND.....	61D	.80
bolt (2).....	61D1	.07
TRANSFER-WEDGE-SPRING-BOX STAND 61D (complete)		.94
<i>Trip, for Galley, see Galley Trip Rod.....</i>	8D	
<i>Trip, for Pump, see Pump-trip Tube.....</i>	a49D	
Type-pusher Guiding Lever.....	30B	
TYPE TRANSFER WEDGE.....	62D	3.50
Type-transfer-wedge Abutment, see Normal-wedge Abutment.....	17C	
TYPE-TRANSFER-WEDGE OPERATING ROD.....	1.. 63D	2.00
nut.....	63D1	.04
" lock nut.....	63D2	.04
pin.....(1).....	63D3	.15
washer (rawhide).....	63D4	.05
TYPE-TRANSFER-WEDGE OPERATING ROD 63D (c'pl't).		2.13
Type-transfer-wedge-operating-rod Crosshead, see Transfer-tongs-type-wedge-lever Crosshead.....	59D16	
Type-transfer-wedge-operating-rod Guide, see Transfer-wedge-operating-rod Guide.....	54D	
Type-transfer-wedge-operating-rod Shifter, see Transfer-wedge Shifter.....	55D	
Type-transfer-wedge Tongs, see Transfer Tongs.....	59D	
Wedge, see Justification Wedge.....	10D	
Wedge, see Micrometer Wedge.....	20D	
Wedge, see Normal Wedge.....	21D	
Wedge, see Space Transfer Wedge.....	52D	
Wedge, see Type Transfer Wedge.....	62D	
Wedge Cover.....	24C	



## E GROUP

Mechanism for receiving power from the belt and transmitting it to the various portions of the machine.

BASE.....	a1E	150.00
hinge (for Door) (2).....	1E1	.20
BASE a1E (complete).....		150.40
BELT-SHIFTER ARM (front).....	2E	1.00
clamp screw.....	2E1	.07
BELT-SHIFTER ARM 2E (complete).....		1.07
BELT-SHIFTER ARM (rear, carrying Eye).....	3E	1.00
clamp.....	3E2	.20
" bolt.....	3E3	.08
set screw.....	3E1	.07
BELT-SHIFTER ARM 3E (complete).....		1.35

+++++ For machines equipped with Display-type Attachment order: Improvement No. 13 +++++		
BELT-SHIFTER ARM.....	2S	1.25
clamp.....	2S1	.20
" bolt.....	2S2	.08
set screw.....	2S2	.07
BELT-SHIFTER ARM 2S (complete).....		1.60
+++++ BELT-SHIFTER ARM 2S (complete)..... +++++		

BELT-SHIFTER EYE.....	4E	1.25
-----------------------	----	------

+++++ For machines equipped with Display-type Attachment order: Improvement No. 13 +++++		
BELT-SHIFTER EYE (forked).....	1S	1.75
+++++ BELT-SHIFTER EYE (forked)..... +++++		

*Belt-shifter Lever, see Operating Lever*..... 32F

BELT-SHIFTER RING.....	5E	3.25
clamp screw.....	5E1	.07
guide pin.....	5E2	.15
BELT-SHIFTER RING 5E (complete).....		3.47

BELT-SHIFTER ROD.....	6E	.90
fibre washer.....	6E1	.05
spring.....	6E2	.45
BELT-SHIFTER ROD 6E (complete).....		1.40

CAM-LEVER SHAFT (front, for Type-carrier-cam, Pump-cam and Transfer-wedge-cam Levers) 7E		1.40
------------------------------------------------------------------------------------------	--	------

CAM-LEVER SHAFT (rear, for Paper-tower-cam, Mold-blade-cam and Type-pusher-cam Levers).....	8E	1.20
cotter.....	8E1	.00
set screw.....	8E2	.10
washer.....	8E3	.10
CAM-LEVER SHAFT 8E (complete).....		1.40

<i>Cam-lever Shaft, for Centering-pin-cam Lever, see Centering-pin-cam-lever Shaft.....</i>	15E	
<i>Cam-lever Shaft, for Jaw-tongs-cam Lever, see Jaw-tongs-cam-lever Shaft.....</i>	25E	

CAM-LEVER-SHAFT STAND (for Centering-pin-cam and Jaw-tongs-cam Levers)...	a9E	20.00
bolt (4).....	9E1	.10
CAM-LEVER-SHAFT STAND a9E (complete).....		20.40

For machines 103 to 501 inclusive and 503 to 519 inclusive order:

Improvement No. 2

CAM-LEVER-SHAFT STAND (for Centering-pin-cam and Jaw-tongs-cam Levers).....	9E	20.00
CAM-LEVER-SHAFT STAND 9E (complete).....		20.40

<i>Cam-lever-shaft Stand, for Shafts 7E and 8E, see Cam-shaft Stand .....</i>	a12E	
-------------------------------------------------------------------------------	------	--

CAM SHAFT (driving).....	10E	12.00
cam key.....	10E1	.15
key (for driving Pulley).....	10E3	.05
nut .....	10E4	.12
gear (graduated).....	10E5	5.00
" key.....	10E6	.10

CAM SHAFT a10E (complete): see Note under  
CAM SHAFT 11E (complete).

For machines 103 to 501 inclusive and 503 to 519 inclusive order:

CAM SHAFT distance ring.....	10E2	.75
CAM SHAFT 10E (complete): see Note under CAM SHAFT 11E (complete)		

CAM SHAFT (driven).....	11E	10.75
cam key.....	11E1	.15
distance ring.....	11E2	.75
gear.....	11E3	4.50
" key.....	11E4	.10

CAM SHAFTS are furnished only in pairs, that is a10E (complete) and 11E (complete), with all the following CAMS in place; TYPE-CARRIER CAMS 71E and 71E1; PUMP CAMS 66E and 66E1; TRANSFER-WEDGE CAMS 69E and 69E1; CENTERING-PIN CAMS a13E and a13E1; LOCKING-BAR CAM a86E; JAW-TONGS CAMS 23E and 23E1; PAPER-TOWER CAMS 52E and 52E1; MOLD-BLADE CAMS 43E and 43E1; TYPE-PUSHER CAMS 75E and 75E1.

Price per pair ..... 80.42



Should it be necessary to replace a pair of CAMS the two SHAFTS 10E and 11E must be returned to the Factory. No charge other than for the material used (at the prices listed) is made for repairing CAM SHAFTS.

For machines 103 to 501 inclusive order: Improvement No. 4

CAM SHAFT 10E (complete) and 11E (complete) with all the following CAMS in place; TYPE-CARRIER CAMS 71E and 71E1; PUMP CAMS 66E and 66E1; TRANSFER-WEDGE CAMS 69E and 69E1; CENTERING-PIN CAMS 13E and 13E1; JAW-TONGS CAMS 23E and 23E1; PAPER-TOWER CAMS 52E and 52E1; MOLD-BLADE CAMS 43E and 43E1; TYPE-PUSHER CAMS 75E and 75E1.

Price per pair..... 78.42

For machines 503 to 519 inclusive order the same as above except that in place of CENTERING-PIN CAMS 13E and 13E1 order CENTERING-PIN CAMS a13E and a13E1. The price is the same.

Cam-shaft Pulley, see Pulley..... 64E

CAM-SHAFT STAND.....	1..a12E	100.00
cap (long, for Cam Shaft) (3).....	(1).. 12E1	1.80
" (short, " ).....	(1).. 12E2	1.60
" screw (for 12E1 and 12E2) (16).....	(1).. 12E3	.08
" (front, for Cam-lever Shaft).....	(1).. 12E4	1.00
" (rear, " ).....	(1).. 12E5	1.00
" pin (in Cap 12E4).....	(1).. 12E6	.03
" screw (for 12E4 and 12E5) (4).....	(1).. 12E7	.07
" (for Worm Shaft).....	(1).. 12E8	2.50
" screw (for 12E8) (4).....	(1).. 12E9	.07
oil pipe (long).....	(1).. 12E10	.15
" (short).....	(1).. 12E11	.10
screw (7-16" x 1 1-8") (4).....	(1).. 12E12	.09
" (7-16" x 1 3-8") (4).....	(1).. 12E13	.09
Winkley oiler (6).....	(1).. 12E14	.15

CAM-SHAFT STAND a12E (complete)..... 100.72

For machines 103 to 501 inclusive and 503 to 519 inclusive order: Improvement No. 2

CAM-SHAFT STAND..... 12E 100.00

CAM-SHAFT STAND 12E (complete)..... 100.72

Carrying-frame-cam Lever, see Centering-pin-cam Lever ..a14E

CENTERING-PIN CAM (driving, marked D in circle). ...a13E 5.50  
(driven, marked D in square).....a13E1

CENTERING-PIN CAM a13E (complete): see Note under CAM SHAFT 11E (complete).

For machines 103 to 501 inclusive order: Improvement No. 4

CENTERING-PIN CAM (driving marked D in circle)... 13E 5.50  
(driven marked D in square).. 13E1

CENTERING-PIN CAM 13E (complete): see Note under CAM SHAFT 11E complete.

CENTERING-PIN-CAM LEVER.....	1..a14E	15.00
bushing (2).....	(1).. 14E1	.18
"    pin (2).....	(1).. 14E2	.01
roller.....	(1).. 14E3	.30
"    pin.....	(1).. 14E4	.15
set screw.....	14E5	.10
CENTERING-PIN-CAM LEVER a14E (complete)...		15.10

For machines 103 to 501 inclusive and 503 to 519 inclusive order:

CENTERING-PIN-CAM LEVER.....	14E	15.00
CENTERING-PIN-CAM LEVER 14E (complete)...		15.10

CENTERING-PIN-CAM-LEVER SHAFT.....	15E	1.20
------------------------------------	-----	------

Centering-pin-cam-lever-shaft Stand, see Cam-lever-shaft Stand..... a9E

CENTERING-PIN LEVER.....	1..a16E	13.00
screw (to Cam Lever) (3).....	16E1	.08
plate (for Lever-arm Rods 15D3 and 57D4).....	16E2	.05
"    screw (2).....	16E3	.04
stud (for Bridge-lever Link).....	(1).. 16E4	.05
"    cotter.....	16E5	.00
CENTERING-PIN LEVER a16E (complete).....		13.37

For machines 103 to 501 inclusive order:

CENTERING-PIN LEVER.....	16E	13.00
CENTERING-PIN LEVER 16E (complete).....		13.37

Centering-pin-lever Link, to Bridge Lever, see Bridge-lever Connecting Link..... 2A1  
 Clamp, for Mold, see Mold Clamp..... 48E

For machines equipped with Display-type Attachment order: Improvement No. 13

COUNTERSHAFT.....	5S	3.00
cone pulley.....	5S1	4.00
"    key.....	5S2	.05
pulley (fast).....	5S3	5.50
"    key.....	5S4	.05
"    (loose).....	1.. 5S5	5.55
"    screw (for oil hole).....	(1).. 5S6	.05
COUNTERSHAFT 5S (complete).....		18.15

COUNTERSHAFT STAND:.....	1.. 6S	23.20
bolt (3).....	6S1	.18
"    nut (3).....	6S2	.08
cap (2).....	(1).. 6S3	1.00
"    oiler (2).....	6S4	.15
"    screw (4).....	6S5	.08
COUNTERSHAFT STAND 6S (complete).....		24.60

COUNTERSHAFT TIGHTENER PULLEY.....	7S	5.00
arm.....	7S1	3.00
"    fulcrum stud.....	7S2	1.25
"    "    nut.....	7S3	.11
"    spring (inside).....	7S4	.25

[Casting Machine] 29



COUNTERSHAFT TIGHTENER PULLEY—Continued		
arm spring (outside).....	7S5	.25
“ “ rod.....	7S6	1.50
“ “ “ fulcrum stud.....	7S7	.35
“ “ “ nut....	7S8	.05
“ “ “ nut (2).....	7S9	.06
“ “ “ washer.....	7S10	.05
stud.....	7S11	1.00
“ nut.....	7S12	.11
COUNTERSHAFT TIGHTENER PULLEY 7S (c'pl't).....		13.04

Door.....	1.. 17E	4.50
hinge pin (2).....	(1).. 17E1	.05
knob.....	(1).. 17E2	.30
latch.....	(1).. 17E3	.25
Door 17E (complete).....		4.50

Door Hinge, see Base Hinge, for Door..... 1E1

Gear, see Cam-shaft Gear..... 10E5

GEAR COVER.....	19E	4.50
screw (lower).....	19E1	.06
“ (upper).....	19E2	.07
GEAR COVER 19E (complete).....		4.63

GEAR VERNIER.....	20E	1.25
screw (2).....	20E1	.03
GEAR VERNIER 20E (complete).....		1.31

Hand Wheel, see Worm-shaft Hand Wheel..... 80E2

Hand-wheel Shaft, see Worm Shaft..... 80E

Idler Gear, see Worm-shaft Gear..... 80E1

Jaw Tongs, see Matrix-jaw Tongs..... 37E

Jaw Tongs, see Pin-jaw Tongs..... a55E

JAW-TONGS BELL CRANK (lower).....	1.. a21E	10.00
ball stud.....	(1).. a21E1	.30
stud (short).....	21E6	.25
“ nut (lower).....	21E3	.07
“ “ (upper).....	21E4	.05
“ washer.....	21E5	.05
(upper).....	2.. a21E10	9.00
ball stud.....	(2).. a21E11	.30
stud (long).....	21E2	.30
“ nut (lower).....	21E7	.07
“ “ (upper).....	21E8	.05
“ washer.....	21E9	.05

JAW-TONGS BELL CRANK a21E (complete).... 19.89

For machines 103 to 320 inclusive, 322 to 501 inclusive and 503 to 519 inclusive order:		
JAW-TONGS BELL CRANK.....	1.. 21E	10.00
ball stud.....	(1).. 21E1	.40
JAW-TONGS BELL CRANK 21E (complete)....		10.89

Omit parts a21E10 and a21E11.

*Jaw-tongs-bell-crank Ball Socket, see Jaw-tongs-spring-box  
Ball Socket.....a27E*

JAW-TONGS-BELL-CRANK FULCRUM STUD.....	22E	1.00
nut (lower).....	22E1	.11
" (upper).....	22E2	.08
washer.....	22E3	.07

JAW-TONGS-BELL-CRANK FULCRUM STUD 22E (c'pl't). 1.26

JAW-TONGS CAM (driving, marked E in circle).....1..	23E	5.50
(driven, marked E in square).....1..	23E1	

JAW-TONGS CAM 23E (complete): see Note under  
CAM SHAFT 11E (complete).

JAW-TONGS-CAM LEVER.....1..	a24E	14.50
clamp bolt (for Ball Extension) (2) .....	24E2	.09
bushing (2).....(1) ..	24E3	.18
pin (2).....(1) ..	24E4	.01
roller.....(1) ..	24E5	.30
pin.....(1) ..	24E6	.15
adjusting screw (for Ball Extension).....	a24E7	.20
lock nut.....	a24E8	.06

JAW-TONGS-CAM LEVER a24E (complete)..... 14.94

For machines 103 to 320 inclusive, 322 to 501  
inclusive and 503 to 519 inclusive order: Improvement No. 1

JAW-TONGS-CAM LEVER.....	24E	13.00
ball extension.....	24E1	1.00
JAW-TONGS-CAM LEVER 24E (complete).....		14.09

Omit parts a24E7 and a24E8.

*Jaw-tongs-cam-lever Ball Extension, see Jaw-tongs-spring-  
box Ball Extension.....a26E1*

JAW-TONGS-CAM-LEVER SHAFT.....	25E	.45
set screw.....	25E1	.10

JAW-TONGS-CAM-LEVER SHAFT 25E (complete). .55

*Jaw-tongs-cam-lever-shaft Stand, see Cam-lever-shaft Stand a9E*

JAW-TONGS SPRING BOX		
ball extension.....	a26E1	1.75
" socket (left bearing for Ball).....	a26E2	2.00
" guide pin.....	a26E3	.01
" plug.....	a26E4	.40
" button.....	a26E5	.50
" plug (right bearing for Ball).....	a26E6	.75
" nut.....	a26E7	.05
" washer.....	a26E8	.40
spring (inside) (2).....	a26E9	.20
(outside) (2).....	a26E10	.25
" abutment (4).....	a26E11	.40
" brake (wood) (2).....	a26E12	.35
" cone (2).....	a26E13	.75
" rod (lower) (Plug for Ball Socket)....	a26E14	1.00
" nut.....	a26E15	.05





Jaw-tongs-spring-box-ball-socket Plug (lower), see Jaw-tongs-spring-box-spring Rod.....a26E14

JAW-TONGS-SPRING-BOX BALL SOCKET (upper).....	a81E	.70
lock nut.....	a81E1	.25
JAW-TONGS-SPRING-BOX BALL SOCKET (upper)		
a81E (complete).....		.95

For machines 103 to 320 inclusive, 322 to 501 inclusive and 503 to 519 inclusive omit parts a81E and a81E1.

Improvement No. 1

*Jaw-tongs-spring-box-ball-socket Plug (upper), see Jaw-tongs-spring-rod-crosshead Ball Plug.....a26E22*

Jaw-tongs Stud (front), in Air-pin Block, see Air-pin-block Stud for front Pin-jaw Tongs..... 3D8

Jaw-tongs Stud (rear), in Main Stand, see Pin-jaw-tongs Stud. . . . . 63F

Locking Bar (front), see Matrix-jaw-stop-rack Locking Bar  
(front)..... a13B

Locking Bar (rear), see Matrix-jaw-stop-rack Locking Bar (rear).....a13C

LOCKING-BAR BELL CRANK (lower, for rear Bar)....1..b28E	2.75
spring post.....(1)..28E1	.05
fulcrum pin (for Latch)(1)..a28E2	.04

LOCKING-BAR BELL CRANK b28E (complete)..	2.75
------------------------------------------	------

See Note after LOCKING-BAR-BELL-CRANK Stud b32E (complete)

For machines 103 to 320 inclusive and 322 to 501 inclusive order: Imn

Improvement No. 1

LOCKING-BAR BELL CRANK (lower, for rear Bar).	1..	28E	2.75
spring post.....	(i) ..	28E1	.05

LOCKING-BAR BELL CRANK 28E (complete) ..	2.75
------------------------------------------	------

Omit PIN a28E2.

LOCKING-BAR BELL CRANK (upper, for front Bar)...	1..b29E	2.75
spring post.....	(1).. 29E1	.05
fulcrum pin (for Latch). (1)...	a29E2	.04

LOCKING-BAR BELL CRANK b29E (complete)..	2.75
------------------------------------------	------

See Note after LOCKING-BAR-BELL-CRANK STUD b32E (complete).

For machines 103 to 320 inclusive and 322 to 501 inclusive order: Imp

Improvement No. 1

LOCKING-BAR BELL CRANK (upper, for front Bar).....	29E	2.75
spring post.....(1).....	29E1	.05

LOCKING-BAR BELL CRANK	29E (complete) ..	2.75
------------------------	-------------------	------

Omit Pin a29E2.

LOCKING-BAR-BELL-CRANK LATCH (lower).....	1..a82E	1.00
spring post.....(1).....	a82E1	.04

LOCKING-BAR-BELL-CRANK LATCH a82E (c'pl't).	1.00
---------------------------------------------	------



For machines 103 to 320 inclusive and 322 to 501 inclusive omit a82E and a82E1.			Improvement No. 1
LOCKING-BAR-BELL-CRANK LATCH (upper).....	1..a83E	1.00	
spring post.....(1) ..	a83E1	.04	
LOCKING-BAR-BELL-CRANK LATCH a83E (c'pl't).		1.00	
For machines 103 to 320 inclusive and 322 to 501 inclusive omit a83E and a83E1.			Improvement No. 1
LOCKING-BAR-BELL-CRANK-LATCH SPRING (2).....	a84E	.10	
For machines 103 to 320 inclusive and 322 to 501 inclusive omit a84E.			Improvement No. 1
LOCKING-BAR-BELL-CRANK-LATCH-SPRING POST (in Main Stand).....	a85E	.05	
For machines 103 to 320 inclusive and 322 to 501 inclusive omit a85E.			Improvement No. 1
LOCKING-BAR-BELL-CRANK SPRING (2).....	30E	.11	
plate (4).....	30E1	.03	
LOCKING-BAR-BELL-CRANK SPRING 30E (com- plete) each.....		.17	
LOCKING-BAR-BELL-CRANK-SPRING POST (in Main Stand).	31E	.05	
LOCKING-BAR-BELL-CRANK STUD (in Main Stand).....	b32E	.35	
nut.....	b32E1	.05	
LOCKING-BAR-BELL-CRANK STUD b32E (c'pl't.).		.40	
For machines 103 to 320 inclusive and 322 to 501 inclusive, order:			Improvement No. 1
LOCKING-BAR-BELL-CRANK STUD (in MAIN STAND)..	32E	.35	
Omit Nut b32E1.			

Note: When ordering any of the following parts  
for the first time for machines 321 and 502 to 1602  
inclusive all of these parts must be ordered.

Improvement No. 1		
LOCKING-BAR BELL CRANK (lower).....	b28E	2.75
LOCKING-BAR BELL CRANK (upper).....	b29E	2.75
LOCKING-BAR-BELL-CRANK STUD.....	b32E	.40
nut.....	b32E1	.05

This new STUD is 7-16" diameter and is tapering where it fits in  
the MAIN STAND. To apply it requires special tools which we will  
loan the customer, charging \$37.60 for them but giving full credit  
on their return in good condition. Credit will also be given for the  
old BELL CRANKS a28E and a29E upon their return in good condi-  
tion. No credit will be given for broken BELL CRANKS or for the  
STUD and NUT. Machines 1603 and following are already equipped  
with these new parts.

Locking-bar Operating Rod (follows a35E)..... a33E

LOCKING-BAR CAM.....a86E 2.75  
See Note under CAM SHAFT 11E (complete).

For machines 103 to 501 inclusive and 503 to 519  
inclusive omit a86E. Improvement No. 2

For machines 1603 and following order: Improvement No. 2  
LOCKING-BAR CAM..... b86E 2.75

LOCKING-BAR-CAM LEVER.....1. a34E 9.50  
bushing (2).....(1)..a34E1 .18  
" pin (2).....(1)..a34E2 .01  
roller.....(1)..a34E3 .30  
" pin.....(1)..a34E6 .15  
stud (for Operating-rod Eye)..... 34E4 .25  
" nut..... 34E5 .05  
LOCKING-BAR-CAM LEVER a34E (complete).... 9.80

For machines 103 to 501 inclusive and 503 to 519  
inclusive order: Improvement No. 2  
LOCKING-BAR LEVER..... 34E 3.00  
link (2)..... 34E1 .50  
" pin..... 34E2 .08  
" cotter (4)..... 34E3 .00  
LOCKING-BAR LEVER 34E (complete)..... 4.46  
Omit part a34E6.

For machines 1151 and following order:  
LOCKING-BAR-CAM LEVER oil pipe.....(1).. a34E7 .20

For machines 1151 to 1602 inclusive order:  
LOCKING-BAR-CAM LEVER oil pipe block.....(1).. a34E8 .20

For machines 1603 and following order: Improvement No. 2  
LOCKING-BAR-CAM LEVER.....1. b34E 9.50  
bushing (2).....(1).. b34E1 .18  
" pin (2).....(1).. b34E2 .01  
roller.....(1).. b34E3 .30  
" pin.....(1).. b34E6 .15  
LOCKING-BAR-CAM LEVER b34E (complete).... 9.80

Locking-bar-cam-lever Stand, see Cam-shaft Stand.....a12E

LOCKING-BAR-CAM-LEVER FULCRUM STUD.....a35E 1.00  
nut.....a35E1 .14  
LOCKING-BAR-CAM-LEVER FULCRUM STUD a35E  
(complete)..... 1.14



For machines 103 to 501 inclusive and 503 to 519  
inclusive order:

Improvement No. 2

LOCKING-BAR-LEVER FULCRUM STUD.....	35E	.60
nut (front).....	35E1	.06
" (rear).....	35E2	.08
washer.....	35E3	.05

LOCKING-BAR-LEVER FULCRUM STUD 35E (c'pl't). 79

Locking-bar Latch, see Locking-bar-bell-crank Latch.....a82E

LOCKING-BAR OPERATING ROD.....	a33E	.50
bearing block.....	a33E1	.75
" " lock nut.....	a33E2	.05
eye.....	a33E5	.50
" lock nut (L. H.).....	a33E6	.05
spring.....	a33E7	.30
stop.....	a33E8	.10

LOCKING-BAR OPERATING ROD a33E (c'pl't). 2.25

For machines 103 to 320 inclusive and 322 to 501  
inclusive order:

Improvements Nos. 1 and 2

LOCKING-BAR OPERATING ROD.....	33E	.50
bearing block.....	1.. 33E1	1.50
" " lock nut (R.H.)...	33E2	.05
" " plate.....	1.. 33E3	
" " rivet (2).....(1)...	33E4	.01
eye.....	33E5	.50
" lock nut (L.H.).....	33E6	.05

LOCKING-BAR OPERATING ROD 33E (c'pl't)... 2.60

Omit SPRING a33E7.

Locking-bar-operating-rod-eye Stud, see Locking Bar-cam  
lever Stud, for Operating-rod Eye..... 34E4

Locking-bar-operating-rod Guide Block, see Matrix-jaw-  
tongs Stud.....a39E

MAIN STAND.....	1.. 36E	200.00
air pipe (Tower to 5 unit Pin, B Block) (1)...	36E1	.35
" " " " " " " " (1)...	36E2	.35
" " " " " " " " (1)...	36E3	.35
" " " " " " " " (1)...	36E4	.35
" " " " " " " " (1)...	36E5	.35
" " " " " " " " (1)...	36E6	.35
" " " " " " " " (1)...	36E7	.35
" " " " " " " " (1)...	36E8	.35
" " " " " " " " (1)...	36E9	.35
" " " " " " " " (1)...	36E10	.35
" " " " " " " " (1)...	36E11	.35
" " " " " " " " (1)...	36E12	.35
" " " " " " " " (1)...	36E13	.35
" " " " " " " " (1)...	36E14	.35
" " " " " " " " (1)...	36E15	.35
" " " " " " " " (1)...	36E16	.35
" " " " " " " " (1)...	36E17	.35
" " " " " " " " (1)...	36E18	.35
" " " " " " " " (1)...	36E19	.35

[Casting Machine] 36

# MAIN STAND—Continued

air pipe (Tower to F Pin, C Block).....	(1)...	36E20	.35
" " ( " " G " " ).....	(1)...	36E21	.35
" " ( " " H " " ).....	(1)...	36E22	.35
" " ( " " I " " ).....	(1)...	36E23	.35
" " ( " " J " " ).....	(1)...	36E24	.35
" " ( " " K " " ).....	(1)...	36E25	.35
" " ( " " L " " ).....	(1)...	36E26	.35
" " ( " " M " " ).....	(1)...	36E27	.35
" " ( " " N " " ).....	(1)...	36E28	.35
" " ( " " 1 (right, or .0005" Pin, D Block).....	(1)...	36E29	.35
" " ( " " 2 (left, or .0075" Pin, D Block).....	(1)...	36E30	.35
" " ( " " 3 (centre, or Space Pin, D Block).....	(1)...	36E31	.35
" " (Tower to Leading Attachment) (3).....	(1)...	36E32	.35
" " (for air blast).....	(1)...	36E33	.35
bolt (1-2" x 3 1-2").....		36E34	.20
" nut (for 36E34).....		36E35	.08
" (7-16" x 3 1-2").....		36E36	.20
" (7-16" x 2") (3).....		36E37	.10
" nut (for 36E36 and 36E37) (4).....		36E38	.07

MAIN STAND 36E (complete)..... 201.06

## For machines 1603 and following order:

MAIN STAND bushing (brass, for water holes) (2)... a36E39 .03

NOTE: These may be applied to machines 103 to 1602 inclusive if the holes in the MAIN STAND be opened out to receive them.

Main-stand Water Connection (front), see Water Connection 79E  
Main-stand-water-pipe Connection (side), see Water-pipe  
Connection ..... 47H

MATRIX-JAW TONGS (front) (complete)			
connecting link (2).....		37E1	
" " bushing (2).....		37E2	
" " pin (2).....		37E3	
lever (4).....		37E4	
" bushing (Jaw end) (2).....		37E5	
link (centre) (2).....		37E6	
" pin (centre) (2).....		37E7	

MATRIX-JAW TONGS 37E (complete)..... 15.00

We cannot furnish separate parts of these TONGS.

Instead we exchange repaired TONGS for worn TONGS.

Price for exchange..... 4.50

MATRIX-JAW TONGS (rear) (complete)			
connecting link (2).....	a38E1		
" " bushing (2).....	a38E2		
" " pin (2).....	38E6		
lever (4).....	38E7		
" bushing (Jaw ends) (2).....	38E8		
link (centre) (2).....	38E9		
" pin (centre) (2).....	38E10		

MATRIX-JAW TONGS a38E (complete)..... 15.00

[Casting Machine] 37



We cannot furnish separate parts of these TONGS.  
 Instead we exchange repaired TONGS for worn TONGS.  
 Price for exchange.....

4.50

For machines 103 to 501 inclusive and 503 to 519  
 inclusive order:

MATRIX-JAW TONGS

connecting eye.....	1..	38E1	
"    (L.H.).....	1..	38E2	
"    adjusting nut.....	(1)..	38E3	.50
"    "    "    lock nut.....	(1)..	38E4	.05
"    "    "    "    (L.H.).....	(1)..	38E5	.05

MATRIX-JAW TONGS 38E (complete)..... 15.00

Matrix-jaw-tongs Bell Crank, see Jaw-tongs Bell Crank...a21E

Matrix-jaw-tongs Cam, see Jaw-tongs Cam..... 23E

Matrix-jaw-tongs Spring, see Pin-jaw-tongs Spring..... 57E

Matrix-jaw-tongs Spring Box, see Jaw-tongs Spring Box...a26E

Matrix-jaw-tongs Stud (front), in Bell Crank, see Jaw-tongs-bell-crank Stud (front)..... 21E2

Matrix-jaw-tongs Stud (front), in Main Stand.....a39E

Matrix-jaw-tongs Stud (rear), in Bell Crank, see Jaw-tongs-bell-crank Stud (rear)..... 21E6

Matrix-jaw-tongs Stud (rear), in Justification-air-pin Block..... 40E

MATRIX-JAW-TONGS STUD (front, in Main Stand).....a39E 1.00

    nut (lower)..... 39E1 .11

    "    (upper)..... 39E2 .05

    arm (for Paper Winding Spring)...a39E3 .15

MATRIX-JAW-TONGS STUD a39E (complete).... 1.31

For machines 103 to 320 inclusive and 322 to 501

inclusive order:

Improvement No. 1

MATRIX-JAW-TONGS STUD (front, in Main Stand).... 39E 1.00

MATRIX-JAW-TONGS STUD 39E (complete).... 1.21

MATRIX-JAW-TONGS STUD (rear, in Justification-air-pin

Block)..... 40E .80

    nut (lower)..... 40E1 .08

    "    (upper)..... 40E2 .05

    washer..... 40E3 .05

MATRIX-JAW-TONGS STUD 40E (complete)..... .98

MOLD-BLADE BELL CRANK.....1.. 41E 4.00

    ball stud.....(1).. 41E1 .30

MOLD-BLADE BELL CRANK 41E (complete).... 4.00

Mold-blade-bell-crank Connecting Rod, see Mold-blade

Connecting Rod..... 45E

MOLD-BLADE-BELL-CRANK STUD..... 42E .45

    nut (lower)..... 42E1 .08

    "    (upper)..... 42E2 .06

    washer..... 42E3 .05

MOLD-BLADE-BELL-CRANK STUD 42E (complete).. .64

[Casting Machine] 38

MOLD-BLADE CAM (driving, marked G in circle).....1.. 43E 5.50  
 (driven, marked G in square) ....1.. 43E1

MOLD-BLADE CAM 43E (complete): see Note  
 under CAM SHAFT 11E (complete).

MOLD-BLADE-CAM LEVER .....1.. 44E 11.50  
 extension.....(1).. 44E1 .40  
 bushing (2).....(1).. 44E2 .18  
 " pin (2).....(1).. 44E3 .01  
 roller.....(1).. 44E4 .30  
 " pin.....(1).. 44E5 .15

MOLD-BLADE-CAM LEVER 44E (complete)..... 11.50

For machines equipped with Display-type Attachment order: Improvement No. 13

MOLD-BLADE-CAM LEVER.....1.. 15S 11.50  
 bushing (2).....(1).. 15S1 .18  
 " pin (2).....(1).. 15S2 .01  
 compound lever..... 15S3 2.00  
 " " locking screw..... 15S4 .35  
 " " collar..... 15S5 .08  
 " " stud..... 15S6 .40  
 " " nut..... 15S7 .07  
 roller.....(1).. 15S8 .30  
 " pin.....(1).. 15S9 .15

MOLD-BLADE-CAM LEVER 15S (complete)..... 14.41

MOLD-BLADE-CAM-LEVER-COMPOUND-LEVER ABUT-  
 MENT (in Main Stand)..... 16S .75  
 nut..... 16S1 .06  
 washer..... 16S2 .05  
 MOLD-BLADE-CAM-LEVER-COMPOUND-LEVER  
 ABUTMENT 16S (complete)..... .86

Mold-blade-cam-lever Shaft, see Cam-lever Shaft, (rear)... 8E

MOLD-BLADE CONNECTING ROD..... 45E .55  
 lock nut..... 45E1 .05  
 " " (L. H.)..... 45E2 .05

MOLD-BLADE CONNECTING ROD 45E (complete). .65

MOLD-BLADE-CONNECTING-ROD BALL SOCKET  
 (on Cam Lever)..... 46E .70  
 lock nut..... 46E1 .25  
 plug..... 46E2 .65

MOLD-BLADE-CONNECTING-ROD BALL SOCKET 46E  
 (complete)..... 1.60

MOLD-BLADE-CONNECTING-ROD BALL SOCKET  
 (on Bell Crank)..... 47E .70  
 lock nut..... 47E1 .25  
 plug (L. H.)..... 47E2 .65

MOLD-BLADE-CONNECTING-ROD BALL SOCKET  
 47E (complete)..... 1.60

Mold-blade Operating Rod..... 16C



MOLD CLAMP (front).....	48E	.20
bolt.....	48E1	.06
" washer .....	48E2	.05
MOLD CLAMP 48E (complete).....		.31
MOLD CLAMP (side).....	49E	.20
bolt.....	49E1	.06
" washer .....	49E2	.05
MOLD CLAMP 49E (complete).....		.31
MOLD SCREW (No. 14 x 1 9-16") (Style M MOLD) (2)..	50E	.08
MOLD SCREW (1-4" x 1 1-4") (Style B MOLD) (3)....	a50E	.08
MOLD SCREW (No. 14 x 1 1-8") (Style M MOLD) .....	51E	.08
<i>Normal-wedge-locking-pin Cam, see Centering-pin Cam...</i>	a13E	
PAPER-TOWER CAM (driving, marked F in circle)....	1.. 52E	5.50
(driven, marked F in square)....	1.. 52E1	
PAPER-TOWER CAM 52E (complete): see Note under CAM SHAFT 11E (complete).		
PAPER-TOWER-CAM LEVER.....	1.. 53E	11.50
bushing (2).....	(1).. 53E1	.18
pin (2).....	(1).. 53E2	.01
roller.....	(1).. 53E3	.30
pin.....	(1).. 53E4	.15
stud (for Operating-rod Eye)....	53E5	.15
nut.....	53E6	.05
PAPER-TOWER-CAM LEVER 53E (complete).....		11.70
<i>Paper-tower-cam-lever Shaft, see Cam-lever Shaft, (rear) ..</i>	8E	
PAPER-TOWER OPERATING ROD.....	54E	.60
eye (lower).....	54E1	.50
lock nut.....	54E2	.05
" (upper).....	54E3	.40
lock nut (L. H.)....	54E4	.05
PAPER-TOWER OPERATING ROD 54E (complete)		1.60
<i>Paper-tower-operating-rod Stud, in Paper-tower-cam Lever,     see Paper-tower-cam-lever Stud.....</i>	53E5	
<i>Paper-tower-operating-rod Stud, in Paper-tower Operat-     ing Lever, see Paper-tower-lever Stud.....</i>	19G3	
<i>Paper-tower-operating-rod Arm, for Winding-spool Ratchet,     see Winding-spool-driving-ratchet-pawl-arm Operating     Finger .....</i>	23G3	
PIN-JAW TONGS (front)		
connecting eye.....	1.. a55E1	
" (L. H.).....	1.. a55E2	
" adjusting stud.....	(1).. a55E15	.40
" " " " lock nut.....	(1).. a55E16	.04
" " " (L. H.).....	(1).. a55E17	.04
" pin (2).....	1.. a55E14	
lever (left, with Spring Post).....	1.. 55E3	
[Casting Machine] 40		

# PIN-JAW TONGS (front)—*Continued*

lever (right).....	1..	55E4	
"    bushing (end) (4).....	1..	55E5	
"    "    washer (end) (4).....	1..	55E6	
lever bushing (centre) (2).....	1..	55E7	
"    washer (centre) (2).....	1..	55E8	
link (centre, upper) (2).....	1..	55E9	
"    "    lower) (2).....	1..	55E10	
"    fulcrum pin (2).....	1..	55E11	
"    bushing (Stud end) (2).....	1..	55E12	
spring post (in left Lever).....	(1)...	55E13	.05
PIN-JAW TONGS a55E (complete).....			13.50

We cannot furnish separate parts of these TONGS, except as indicated above by the Italic figure (1) following the name of the piece furnished separately. Instead we exchange repaired TONGS for worn TONGS. Price for exchange.....

4.00

## PIN-JAW TONGS (rear)

connecting eye.....	1..	56E1	
"    "    (L. H.).....	1..	56E2	
"    "    adjusting stud.....	(1)...	56E3	.40
"    "    "    "    lock nut.....	(1)...	56E4	.04
"    "    "    "    "    (L. H.) (1).....	1..	56E5	.04
"    "    pin (2).....	1..	56E6	
lever (front).....	1..	56E7	
"    (rear, with Spring Post).....	1..	56E8	
"    bushing (end) (4).....	1..	56E9	
"    "    (centre) (2).....	1..	56E10	
"    "    "    washer (end) (4).....	1..	56E11	
"    "    "    (centre) (2).....	1..	56E12	
link (3).....	1..	56E13	
"    bushing (Stud end) (2).....	1..	56E14	
"    fulcrum pin (2).....	1..	56E15	
"    (lower Link at centre of rear Lever).....	1..	56E16	
spring post (in rear Lever).....	(1)...	56E17	.05
PIN-JAW TONGS 56E (complete).....			13.50

We cannot furnish separate parts of these TONGS, except as indicated above by the Italic figure (1) following the name of the piece furnished separately. Instead we exchange repaired TONGS for worn TONGS. Price for exchange.....

4.00

*Pin-jaw-tongs Bell Crank, see Jaw-tongs Bell Crank.....*a21E

*Pin-jaw-tongs Cam, see Jaw-tongs Cam.....*23E

PIN-JAW-TONGS SPRING (inside).....	57E	.35
(outside).....	57E1	.40
guide tube.....	57E2	.90
"    "    eye.....	57E3	.35
"    "    nut.....	57E4	.12
"    "    spring sleeve.....	57E5	.25
"    rod.....	57E6	.15
"    "    spring plate.....	57E7	.08
"    "    rivet.....	57E8	.01
PIN-JAW-TONGS SPRING 57E (complete).....		2.61



PIN-JAW-TONGS-SPRING BELL CRANK (front).....1..	58E	2.00
pin (for Link).....(1)...	58E1	.05
" (for Guide-tube Eye)...(1)...	58E2	.05
cotter.....	58E3	.00
PIN-JAW-TONGS-SPRING BELL CRANK 58E (c'pl't).		2.00
PIN-JAW-TONGS-SPRING-BELL-CRANK STUD.....	59E	.40
nut (lower).....	59E1	.05
" (upper).....	59E2	.05
washer.....	59E3	.05
PIN-JAW-TONGS-SPRING-BELL-CRANK STUD		
59E (complete).....		.55
<i>Pin-jaw-tongs-spring-bell-crank-stud Stand, see Cam-lever-shaft Stand.....</i>	a9E	
<i>Pin-jaw-tongs Spring Box, see Jaw-tongs Spring Box.....</i>	a26E	
PIN-JAW-TONGS-SPRING CONNECTING LINK (long, front)..	60E	.20
PIN-JAW-TONGS-SPRING CONNECTING LINK (short, rear)..	61E	.15
PIN-JAW-TONGS-SPRING LEVER (rear).....1..	62E	1.25
pin (for Link).....(1)...	62E1	.05
" (for Guide-rod Spring Plate)...(1)...	62E2	.05
PIN-JAW-TONGS-SPRING LEVER 62E (complete).		1.25
<i>Pin-jaw-tongs-spring-lever Stud, see Mold-blade-bell-crank Stud.....</i>	42E	
PIN-JAW-TONGS STUD (rear, in Main Stand).....	63E	.70
nut (lower).....	63E1	.08
" (upper).....	63E2	.05
washer.....	63E3	.05
PIN-JAW-TONGS STUD 63E (complete).....		.88
<i>Pin-jaw-tongs-stud(front), in Bell Crank, see Jaw-tongs-bell-crank Stud (front).....</i>	21E2	
<i>Pin-jaw-tongs-stud (front), in Justification-air-pin Block, see Air-pin-block Stud, for Pin-jaw Tongs.....</i>	3D8	
<i>Pin-jaw-tongs Stud (rear), in Bell Crank, see Jaw-tongs bell-crank Stud (rear).....</i>	21E6	
<i>Pin-jaw-tongs Stud (rear), in Main Stand.....</i>	63E	
<i>Post, see Base.....</i>	1E	
PULLEY (driving).....	64E	5.50
PULLEY (loose).....1..	65E	5.50
screw (for Oil Hole).....(1)...	65E1	.05
PULLEY 65E (complete).....		5.50
+++++ For machines equipped with Display-type Attachment order: Improvement No. 13 +++++		
PULLEY (fast, on Cam Shaft).....1..	28S	6.00
pin (for Cone Pulley).....(1)...	28S1	.05
PULLEY 28S (complete).....		6.00
+++++		





TRANSFER-WEDGE-CAM LEVER.....1..	70E	11.75
bushing (2).....(1)...	70E1	.18
pin (2).....(1)...	70E2	.01
clamp bolt.....	70E3	.08
extension adjusting bolt.....	70E4	.09
"                    lock nut.....	70E5	.05
roller.....(1)...	70E6	.30
"                    pin.....(1)...	70E7	.15
TRANSFER-WEDGE-CAM LEVER 70E (complete)...		11.97
<i>Transfer-wedge-cam-lever Extension, see Transfer-tongs-</i>		
<i>cam-lever Extension.....</i>	59D1	
<i>Transfer-wedge-cam-lever Shaft, see Cam-lever Shaft (front) ..</i>	7E	
<i>Transfer-wedge-operating-rod Guide.....</i>	54D	
TYPE-CARRIER CAM (driving, marked A in circle)....1..	71E	5.50
(driven, marked A in square)....1..	71E1	
TYPE-CARRIER CAM 71E (complete): see Note		
under CAM SHAFT 11E (complete).		
TYPE-CARRIER-CAM LEVER.....1..	72E	12.50
bushing (2).....(1)...	72E1	.18
"                    pin (2).....(1)...	72E2	.01
clamp bolt.....	72E3	.08
extension.....a72E4	72E4	1.00
"                    adjusting bolt.....	72E5	.09
"                    "                    lock nut.....	72E6	.05
roller.....(1)...	72E7	.30
"                    pin.....(1)...	72E8	.15
TYPE-CARRIER-CAM LEVER a72E (complete)....		13.72
<i>Type-carrier-cam-lever Pin, see Type-carrier-connecting-</i>		
<i>rod-forked-eye Pin.....</i>	21B7	
<i>Type-carrier-cam-lever Shaft, see Cam-lever Shaft (front)...</i>	7E	
<i>Type Pusher.....</i>	29B	
TYPE-PUSHER BELL CRANK.....1..	73E	4.00
ball stud.....(1)...	73E1	.30
TYPE-PUSHER BELL CRANK 73E (complete)....		4.00
<i>Type-pusher-bell-crank Pin, see Type-pusher-eye Pin.....</i>		
TYPE-PUSHER-BELL-CRANK FULCRUM STUD.....	74E	.30
nut.....	74E1	.08
TYPE-PUSHER-BELL-CRANK FULCRUM STUD 74E (c'pl't).		.38
TYPE-PUSHER CAM (driving, marked H in circle)....1..	75E	5.50
(driven, marked H in square)....1..	75E1	
TYPE-PUSHER CAM 75E (complete): see Note		
under CAM SHAFT 11E (complete).		
<i>Type-pusher-cam Stop Pin, see Belt-shifter-ring Guide Pin ..</i>		







## F GROUP

Mechanism for receiving the type from the Type Carrier and assembling it in lines on the galley pan.

<i>Belt-shifter Lever, see Operating Lever</i> .....	32F	
<i>Channel Block, see Type-channel Block</i> .....	50F	
COLUMN PUSHER.....	1F	16.00
line support stop (and Type Guide).....	1F1	.15
screw.....	1F2	.02
spring post.....	1F3	.05
COLUMN PUSHER 1F (complete).....		16.00
<i>Column-pusher Cam, see Galley Cam</i> .....	a14F	
COLUMN-PUSHER ADJUSTING SCREW		
(for varying "point size").....	2F	1.10
disc.....	2F1	.03
pin.....	2F2	.02
COLUMN-PUSHER ADJUSTING SCREW 2F (c'pl't)...		1.10
COLUMN-PUSHER-ADJUSTING-SCREW STAND.....	3F	3.25
spring.....	3F1	.10
stud.....	3F2	.25
nut (2).....	3F3	.08
COLUMN-PUSHER-ADJUSTING-SCREW STAND 3F (c'pl't)...		3.41
COLUMN-PUSHER FULCRUM SCREW (long).....	4F	.25
(short).....	4F1	.25
lock nut (2).....	4F2	.11
COLUMN-PUSHER FULCRUM SCREW 4F (c'pl't)...		.72
COLUMN-PUSHER LEVER.....	5F	2.20
<i>Column-pusher-lever Adjusting Screw, see Column-pusher Adjusting Screw</i> .....	2F	
COLUMN-PUSHER-LEVER STUD.....	6F	.45
nut.....	6F1	.08
washer.....	6F2	.07
COLUMN-PUSHER-LEVER STUD 6F (complete)....		.60
<i>Column-pusher Line Support, see Line Support</i> .....	29F	
COLUMN-PUSHER SPRING .....	7F	.25
plate (2).....	7F1	.03
COLUMN-PUSHER SPRING 7F (complete).....		1.31



COLUMN-PUSHER SPRING BOX.....	8F	1.00
adjusting ball plug.....	8F1	1.05
lock nut.....	8F2	.25
ball plunger.....	8F3	1.00
washer.....	8F4	.05
plug.....	8F5	1.00
spring.....	8F6	.15
COLUMN-PUSHER SPRING BOX 8F (complete)...		4.50
Column-pusher-spring Post, in Main Galley Stand, see Main-galley-stand Spring Post.....	31F5	
Column-pusher-spring Post, in Column Pusher, see Column pusher-spring Post.....	1F3	
Column-pusher Stand, see Main Galley Stand.....	31F	
COLUMN SUPPORT (short, for columns 9 to 13½ picas inclusive)		
bar.....	9F1	1.75
" finger catch.....(1)...	9F2	.15
screw (2).....(1)...	9F3	.02
slide.....	9F4	
plate.....	9F5	
" finger catch.....(1)...	9F6	.15
rivet.....(1)...	9F7	.05
" stop pin.....(1)...	9F8	.05
spring.....(1)...	9F9	.06
guide rod.....	9F10	
COLUMN SUPPORT 9F (complete).....		1.75
COLUMN SUPPORT (medium, for columns 13½ to 20 picas inclusive)		
bar.....	10F1	2.00
" finger catch.....(1)...	10F2	.15
screw (2).....(1)...	10F3	.02
slide.....	10F4	
plate.....	10F5	
" finger catch.....(1)...	10F6	.15
rivet.....(1)...	10F7	.05
" stop pin.....(1)...	10F8	.05
spring.....(1)...	10F9	.08
guide rod.....	10F10	
COLUMN SUPPORT 10F (complete).....		2.00
COLUMN SUPPORT (long, for columns 20 to 30½ picas in- clusive).		
bar.....	11F1	2.25
" finger catch.....(1)...	11F2	.15
screw (2).....(1)...	11F3	.02
slide.....	11F4	
plate.....	11F5	
" finger catch.....(1)...	11F6	.15
rivet.....(1)...	11F7	.05
" stop pin.....(1)...	11F8	.05
spring.....(1)...	11F9	.10
guide rod.....	11F10	
COLUMN SUPPORT 11F (complete).....		2.25

COLUMN SUPPORT (extra long, for columns 26½ to 42  
picas inclusive).

bar.....	1..	12F1	2.50
“ finger catch.....	(1) ..	12F2	.15
“ “ screw (2).....	(1) ..	12F3	.02
slide.....	1..	12F4	
“ plate.....	1..	12F5	
“ finger catch.....	(1) ..	12F6	.15
“ “ rivet.....	(1) ..	12F7	.05
“ stop pin.....	(1) ..	12F8	.05
spring.....	1..	12F9	.15
“ guide rod.....	1..	12F10	

COLUMN SUPPORT 12F (complete)..... 2.50

Column-width Stop, see Stop Slide..... 44F

Cover Plate, see Sort Tray..... 42F

GALLEY BAR.....	1..	13F	4.50
“ plate.....	(1) ..	13F1	.18
“ rivet (2).....	(1) ..	13F2	.02
“ pin.....	(1) ..	13F3	.05

GALLEY BAR 13F (complete)..... 4.50

GALLEY CAM.....	1..	a14F	18.00
driving pawl.....	2..	14F1	1.50
“ “ pin (for Spring).....	(2) ..	14F2	.01
“ “ fulcrum screw.....		14F3	.20
“ “ washer.....		14F4	.05
“ “ spring.....		14F5	.05
“ “ post (in Galley Cam)...		14F6	.05
“ “ stop pin (in Galley Cam)(1) ..		14F7	.12
sleeve.....		14F8	4.00

GALLEY CAM a14F (complete)..... 23.85

For machines 103 to 501 inclusive and 503 to 522

inclusive order:

GALLEY CAM.....	14F	18.00	Improvement No. 7
GALLEY CAM 14F (complete).....		23.85	

For machines 1665 and following order:

GALLEY CAM.....	1..	b14F	18.00
driving pawl fulcrum stud.....	(1) ..	a14F3	.20
“ “ “ “ washer (lower) ..		14F4	.05
“ “ “ “ “ (upper) ..		a14F9	.05
“ “ “ “ nut.....		a14F10	.05

GALLEY CAM a14F (complete)..... 23.85

To equip machines 103 to 1664 inclusive with b14F requires that a14F3, a14F9 and a14F10 be also furnished. The improved parts a14F3, a14F9 and a14F10 may be applied to machines 103 to 1664 inclusive by opening out the hole in the old CAM 14F or a14F to receive a14F3 with a driving fit.



<i>Galley-cam Cover Plate, see Sort Tray.....</i>	42F	
<i>Galley-cam-driving-pawl Trip Lever, see Trip Lever.....</i>	45F	
GALLEY-CAM SHAFT.....	1..	15F 3.00
key (3).....	(1)...	15F1 .05
ratchet.....		15F2 2.75
worm wheel.....		15F3 6.00
GALLEY-CAM SHAFT 15F (complete).....		11.75
<i>Galley-cam-shaft-stand Stud, for Line-hook-operating-slide</i>		
<i>Lever, see Line-hook-operating-slide-lever Stud.....</i>	26F	
<i>Galley-cam-shaft Worm, see Worm-shaft Worm.....</i>	80E6	
GALLEY-CAM STAND.....	16F	30.00
dowel.....	16F1	.05
screw (4).....	16F2	.08
GALLEY-CAM STAND 16F (complete).....		30.37
<i>Galley-cam Stop Pin, see Galley-cam-driving-pawl Stop Pin</i>	14F7	
<i>Galley-cam Trip Lever, see Trip Lever.....</i>	45F	
<i>Galley Column Support, see Column Support.....</i>	9F	
GALLEY-PAN SHELF.....	a17F	9.00
adjusting bar (for Galley Pan).....	17F1	.10
" " clamp.....	17F2	.25
" " " bevel nut.....	17F3	.10
" " " bolt.....	17F4	.07
screw (4).....	17F5	.08
set screw (2).....	17F6	.07
GALLEY-PAN SHELF a17F (complete).....		9.98
~~~~~		
For machines 103 to 501 inclusive and 503 to 519		
inclusive order: Improvement No. 5		
GALLEY-PAN SHELF.....	17F	9.00
GALLEY-PAN SHELF 17F (complete).....		9.98
~~~~~		
GALLEY-PAN SUPPORT.....	a18F	5.00
bar (2).....	a18F1	.70
bevel nut (3).....	18F2	.10
" bolt (3).....	18F3	.07
block (for Galley Bar).....	18F4	.20
corner block (rear, for Galley Pan).....	18F5	.25
" (front, for Galley Pan).....	18F6	.25
set screw (2).....	a18F7	.07
GALLEY-PAN SUPPORT a18F (complete).....		7.75
~~~~~		
For machines 103 to 501 inclusive and 503 to 519		
inclusive order: Improvement No. 5		
GALLEY-PAN SUPPORT.....	1..	18F 6.00
bar (2).....	(1)...	18F1 .70
GALLEY-PAN SUPPORT 18F (complete).....		7.21
Omit SET SCREWS a18F7.		
~~~~~		
<i>Galley-pan-support-bar Set Screw, see Galley-pan-shelf Set</i>		
<i>Screw.....</i>	17F6	

<i>Galley Stand, see Main Galley Stand</i> .....	31F	
<i>Galley Trip Lever, see Trip Lever</i> .....	45F	
<i>Galley Trip Rod</i> .....	8D	
<i>Knockout Slide, see Stop Slide</i> .....	44F	
LINE HOOK (complete)		
(lower).....	19F1	
(upper).....	19F2	
lever.....	19F3	
rivet (2).....	19F4	
separator.....	19F5	
LINE HOOK 19F (complete).....		5.00
<i>Line-hook Cam, see Galley Cam</i> .....	a14F	
LINE-HOOK CARRIAGE.....	20F	3.00
friction plunger (2).....	20F1	.05
"                    spring (2).....	20F2	.05
LINE-HOOK CARRIAGE 20F (complete).....		3.20
<i>Line-hook-carriage Shoe, see Line-hook-operating-slide Shoe</i>	24F	
<i>Line-hook-carriage Stud, for Line Hook, see Line-hook Stud</i>	28F	
LINE-HOOK OPERATING BAR.....	a21F	2.20
friction plunger.....	21F1	.05
"                    spring.....	21F2	.05
locking rod.....	a21F3	.75
LINE-HOOK OPERATING BAR a21F (complete).....		3.05
~~~~~ For machines 103 to 501 inclusive and 503 to 522 inclusive order:~~~~~		
LINE-HOOK OPERATING BAR.....	21F	2.00
LINE-HOOK OPERATING BAR 21F (complete).....		2.10
~~~~~ Omit LOCKING ROD a21F3.~~~~~		
LINE-HOOK-OPERATING-BAR STOP.....	22F	.55
adjusting screw.....	a22F1	.03
screw (2).....	22F2	.06
LINE-HOOK-OPERATING-BAR STOP 22F (complete).....		.64
~~~~~ For machines 103 to 501 inclusive and 503 to 522 inclusive order:~~~~~		
LINE-HOOK-OPERATING-BAR STOP adjusting screw.....	22F1	.03
LINE-HOOK OPERATING SLIDE.....	1. a23F	3.00
latch (for Line Support).....	a23F1	.50
" locking pin.....	a23F2	.15
" spring.....	a23F4	.05
" operating rod (hand).....	23F5	.15
" pin.....	23F6	.05
" stud.....	23F8	.05
" washer.....	23F9	.05
pin (for Operating Bar).....	(1) 23F7	.08
LINE-HOOK OPERATING SLIDE a23F (complete).....		4.00

For machines 103 to 501 inclusive and 503 to 529		
Inclusive order:	Improvement No. 10	
LINE-HOOK OPERATING SLIDE.....	1..	23F 3.00
latch (for Line Support).....	23F1	.50
" locking pin	23F2	.15
" " guide pin.....	23F3	.01
" " spring.....	23F4	.05
pin (for Operating Bar).....(1)..	23F7	.08
LINE-HOOK OPERATING SLIDE 23F (c'pl't)...		4.01

For machines 1603 and following order:		
	Improvement No. 12	
LINE-HOOK OPERATING SLIDE.....	1..	b23F 3.00
spring pin.....	a23F11	.04
pin (for Operating Bar) (1)..	23F7	.08
LINE-HOOK OPERATING SLIDE b23F (c'pl't)...		3.04
Omit a23F (complete).		

For machines 1603 and following order:		
	Improvement No. 12	
LINE-HOOK-OPERATING-SLIDE LATCH.....	a53F	.50
frame.....	1..	a53F1 2.00
" operating lever.....	2..	a53F2 .50
" " stud.....	2..	a53F3
" " " cotter....	a53F4	.00
" " " spring.....	a53F5	.05
" spring.....	a53F7	.05
" pin.....(1)..	a53F6	.04
spring.....	a53F9	.05
stud (in Latch Frame).....	a53F8	.05
LINE-HOOK-OPERATING-SLIDE LATCH a53F (c'pl't)...		3.20

Line-hook-operating-slide Bar, see Line-hook Operating Bar a21F
Line-hook-operating-slide Pin, in Spring Box, see Line-
hook-operating-slide-spring-box Pin..... 27F2
Line-hook-operating-slide Shoe, follows 26F..... 24F

LINE-HOOK-OPERATING-SLIDE LEVER.....	1..	25F 5.00
cam roller.....	25F1	.30
" " pin(1)...	25F2	.25
LINE-HOOK-OPERATING-SLIDE LEVER 25F (c'pl't)...		5.30

Line-hook-operating-slide-lever Stand, see Galley-cam Stand 16F

LINE-HOOK-OPERATING-SLIDE-LEVER STUD.....	26F	1.50
nut.....	26F1	.11
LINE-HOOK-OPERATING-SLIDE-LEVER STUD 26F (c'pl't)...		1.61

LINE-HOOK-OPERATING-SLIDE SHOE.....	24F	2.20
screw (5).....	24F1	.06
LINE-HOOK-OPERATING-SLIDE SHOE 24F (c'pl't)...		2.50

Line-hook-operating-slide Pin, for Spring Box, see Line-
hook-operating-slide-spring-box Pin, in Lever..... 27F1

LINE-HOOK-OPERATING-SLIDE SPRING BOX.....	27F	1.50
pin (in Lever).....	27F1	.05
" (in Operating Slide).....	27F2	.12
plug (rear).....	27F3	.40
spring.....	27F4	.15
" abutment (front)	27F5	.15
" " (rear).....	27F6	.05
rod.....	27F7	.55
" adjusting nut.....	27F8	.05
" " lock nut.....	27F9	.05
" eye.....	27F10	.50
" " lock nut.....	27F11	.05
LINE-HOOK-OPERATING-SLIDE SPRING BOX 27F		
(complete).....		3.62
~~~~~		
For machines 1603 and following order: Improvement No. 12		
LINE-HOOK-OPERATING-SLIDE SPRING BOX pin		
(in Operating Slide).....	a27F2	.12
~~~~~		
LINE-HOOK STUD.....	28F	.65
nut.....	28F1	.05
LINE-HOOK STUD 28F (complete).....		.70
Line-travel Lever, see Line-hook-operating-slide Lever....	25F	
LINE SUPPORT (thin, from 5½ pt. to 8 pt. inclusive)..	29F	1.25
spring.....	(1) 29F1	.05
screw.....	(1) 29F2	.02
LINE SUPPORT 29F (complete).....		1.25
LINE SUPPORT (thick, from 9 pt. to 12 pt. inclusive)1...	30F	1.25
spring.....	(1) 30F1	.05
screw.....	(1) 30F2	.02
LINE SUPPORT 30F (complete).....		1.25
Line-support Latch, see Line-hook-operating-slide Latch..	a23F1	
Line-support Stop, see Column-pusher-line-support Stop..	1F1	
MAIN GALLEY STAND.....	31F	100.00
dowel.....	31F1	.05
screw (1-2" x 1 3-8").....	31F2	.10
" (7-16" x 1 1-8").....	31F3	.09
" (3-8" x 1 1-8").....	31F4	.08
spring post (for Column-pusher Spring)....	31F5	.05
MAIN GALLEY STAND 31F (complete).....		100.37
Main-galley-stand Plate, for Type Channel, see Type-		
channel Plate.....	49F	
Main-galley-stand Shoe, for Carriage and Slide, see Line-		
hook-operating-slide Shoe.....	24F	
Main-galley-stand Spring Post, for Operating-lever-latch		
Spring, see Operating-lever-latch-spring Post.....	35F	
Main-galley-stand Spring Post, for Trip Lever, see Trip-		
lever-spring Post.....	48F	
OPERATING LEVER.....	32F	5.00

For machines 103 to 511 order:

OPERATING LEVER plate..... 32F1 .30
 " rivet (2)..... 32F2 .02

The OPERATING LEVER 32F is interchangeable since it is now made without the above PLATE.

OPERATING-LEVER LATCH..... 33F 3.00
 bar (for Stop-slide Lever)..... 33F1 .55
 " clamp..... 33F2 .50
 " " screw..... 33F3 .04
 fulcrum screw (rear)..... 33F4 .10
 " (headless, front)... 33F5 .05
 " " lock nut..... 33F6 .05
 OPERATING-LEVER LATCH 33F (complete)... 4.29

Operating-lever-latch Lever, for Stop Slide, see Stop-slide Lever..... 44F9

OPERATING-LEVER-LATCH SPRING..... 34F .08

OPERATING-LEVER-LATCH-SPRING POST (in Main Galley Stand)..... 35F .05

OPERATING-LEVER-LATCH STAND..... 36F .30
 bolt (2)..... 36F1 .07

OPERATING-LEVER-LATCH STAND 36F (complete) .44

OPERATING-LEVER SPRING BOX..... 37F 1.50
 plunger..... 37F1 .45
 stop pin..... 37F2 .03
 spring..... 37F3 .08
 OPERATING-LEVER SPRING BOX 37F (complete) 2.06

Operating-lever-spring-box Abutment Arm, see Belt-shifter Arm (front)..... 2E

Operating-lever-spring-box Guide, see Galley-cam Stand.. 16F

Operating-lever Stand, see Main Galley Stand..... 31F

OPERATING-LEVER STUD..... 38F 1.15
 nut..... 38F1 .07

OPERATING-LEVER STUD 38F (complete)..... 1.22

Pusher, see Column Pusher..... 1F

RULE..... 1.. 39F 6.00
 guide pin..... (1).. 39F1 .12
 " rivet (2)..... (1).. 39F2 .01
 lifting rod..... (1).. 39F3 .50
 " " adjusting nut..... 39F4 .05
 " " lock nut..... 39F5 .05
 " " sleeve..... 39F6 .08
 " " spring..... 39F7 .11
 " " support..... 1.. 39F8
 " " rivet (4)..... (1).. 39F9 .01
 " " washer (3)..... 39F10 .05
 RULE 39F (complete)..... 6.44

<i>Rule Cam, see Galley Cam</i>	a14F	
RULE LEVER.....	1..	40F 5.50
cam roller.....	(1) ..	40F1 .30
" " oil pipe.....	(1) ..	40F2 .05
" " pin.....	(1) ..	40F3 .30
" " nut.....	(1) ..	40F4 .06
" " washer.....	(1) ..	40F5 .05
RULE LEVER 40F (complete).....		5.50
RULE-LEVER STUD.....	41F	.65
<i>Rule-lever Stand, see Galley-cam Stand</i>	16F	
<i>Shelf, for Galley Pan, see Galley-pan Shelf</i>	a17F	
SORT TRAY.....	42F	3.25
SORT-TRAY SUPPORT BAR.....	1..	43F .60
stud (long).....		43F1 .18
" (short).....		43F2 .12
" nut (2).....		43F3 .05
" (for Sort Tray).....	(1) ..	43F4 .10
" nut (knurled).....		43F5 .40
SORT-TRAY SUPPORT BAR 43F (complete).....		1.40
STOP SLIDE (for long and short lines).....	1..	44F 2.75
adjusting stand (for column width).....		44F1 2.50
guide bar (for adjusting column		
width).....		44F2 1.75
" " guide bar clamp.....		44F3 .50
" " " " bolt.....		44F4 .08
" " " " plate.....		44F5 1.25
" " " " rivet (2).....		44F6 .01
" " plate.....		44F7 1.50
" " screw (3).....		44F8 .03
lever.....	2..	44F9 1.25
" bolt.....		44F10 .06
" " bevel nut.....		44F11 .10
" bushing.....		44F12 .15
" " washer.....		44F13 .05
" pin.....	(2) ..	44F14 .05
pin.....	(1) ..	44F15 .05
STOP SLIDE 44F (complete).....		12.05
<i>Stop-slide-lever Latch, see Operating-lever Latch</i>	33F	
<i>Stop-slide Stand, see Main Galley Stand</i>	31F	
<i>Support, for Galley Pan, see Galley-pan Support</i>	a18F	
TRIP LEVER.....	1..	45F 5.00
adjusting screw.....		45F1 .03
" clamp screw.....		45F2 .05
latch.....	(1) ..	45F3 .55
" guide pin.....	(1) ..	45F4 .02
" stud.....	(1) ..	45F5 .12
" " cotter.....	(1) ..	45F6 .00
" " washer.....	(1) ..	45F7 .05
spring post (in Lever).....	(1) ..	45F8 .05

TRIP LEVER— <i>Continued</i>		
stop screw	45F9	.07
" lock nut	45F10	.05
TRIP LEVER 45F (complete).....		5.20
TRIP-LEVER FULCRUM SCREW.....	46F	.60
TRIP-LEVER SPRING.....	47F	.08
TRIP-LEVER-SPRING POST (in Main Galley Stand).....	48F	.05
<i>Trip-lever Stand, see Main Galley Stand</i>	31F	
<i>Trip Rod, see Galley Trip Rod</i>	8D	
TYPE CHANNEL PLATE.....	49F	5.00
screw (2).....	49F1	.05
TYPE CHANNEL PLATE 49F (complete).....		5.10
TYPE CHANNEL BLOCK (adjustable).....(1) ..	50F	2.50
bolt.....	50F6	.07
" washer.....	50F7	.05
clamp.....1 ..	50F1	12.00
" latch.....(1) ..	50F2	.75
" pin (3).....(1) ..	50F3	.03
" spring.....(1) ..	50F4	.05
" tongue.....1 ..	50F5	
rivet (3).....(1) ..	50F8	.01
stop plate (for Clamp Tongue).....(1) ..	50F9	.05
screw (2).....(1) ..	50F10	.03
type trimmer.....(1) ..	50F11	1.75
" screw.....(1) ..	50F12	.05
TYPE CHANNEL BLOCK 50F (complete).....		12.12
+++++ For machines equipped with Display-type Attachment order: Improvement No. 13 +++++		
TYPE CHANNEL BLOCK (adjustable).....(1) ..	40S	2.50
clamp.....1 ..	40S1	12.00
" latch.....(1) ..	a40S2	1.00
" pin (3).....(1) ..	40S3	.03
" spring.....(1) ..	40S4	.05
" tongue.....1 ..	40S5	
" rivet (3).....(1) ..	40S6	.01
" stop plate.....(1) ..	40S7	.05
" " screw (2).....(1) ..	40S8	.03
" type guide.....1 ..	40S9	
TYPE CHANNEL BLOCK 40S (complete).....		12.00
+++++ +++++		
TYPE CHANNEL BLOCK (fixed).....1 ..	51F	2.75
dowel (No. 5 x 1 1-2", front).....	51F1	.04
(No. 5 x 1 1-4", rear).....	51F2	.04
latch.....(1) ..	51F3	1.00
" pin (2).....(1) ..	51F4	.03
screw (1-4" x 1 1-8").....	51F5	.07
" (1-4" x 1 3-8").....	51F6	.07
TYPE CHANNEL BLOCK 51F (complete).....		2.97

Line-hook-operating-slide Latch, follows b23F.....a53F

For machines equipped with Display-type Attachment order:			Improvement No. 13
TYPE CHANNEL BLOCK (fixed).....	1..	a41S	2.75
screw (rear).....		41S1	.06
latch.....	(1) ..	a41S2	.15
" screw (2).....	(1) ..	a41S3	.02
TYPE CHANNEL BLOCK 41S (complete).....			2.81

Type Clamp, in Type Channel Block, see Type-channel-block Clamp..... 50F1
Type Guide, see Column-pusher-line-support Stop..... 1F1
Type Trimmer, see Type-channel-block Type Trimmer.... 50F11
Worm Shaft, see Galley-cam Shaft..... 15F

G GROUP

Mechanism for moving and positioning the paper ribbon and admitting air to the Pin Blocks.

<i>Air-tower Housing, (follows Air-pipe Cover 8G).....</i>	1G	
AIR BAR (including Valve Body).....	1..	2G
clamp screw.....	(1)...	2G1 .04
leather packing.....	(1)...	2G2 .10
spring (2).....		2G3 .08
stud (2).....		2G4 .05
" " washer (2).....		2G5 .03
" " nut (2).....		2G6 .04
" " " lock nut (2).....		2G7 .04
valve.....	(1)...	2G8 .25
spring.....	(1)...	2G9 .05
body plug (in Air Bar).....	(1)...	2G10 .15
AIR BAR 2G (complete).....		5.48
<i>Air-bar Operating Rod, see Air-bar-clamping-lever Connecting Rod.....</i>	4G	
AIR-BAR CLAMPING LEVER (also operates Air-bar Valve),	3G	2.25
stud (for Operating Rod).....	3G1	.15
" nut.....	3G2	.04
screw (for operating Valve).....	3G3	.04
" lock nut.....	3G4	.04
AIR-BAR CLAMPING LEVER 3G (complete).....		2.52
AIR-BAR-CLAMPING-LEVER CONNECTING ROD.....	4G	.15
adjustable sleeve.....	a4G7	.15
" lock nut.....	a4G8	.04
connecting hook.....	4G1	.50
" lock nut.....	4G2	.04
" link.....	4G3	1.35
" lock nut.....	4G4	.04
spring.....	4G5	.08
" seat.....	4G6	.03
washer.....	a4G9	.03
AIR-BAR-CLAMPING-LEVER CONNECTING ROD 4G (complete).....		2.41

For machines 103 to 682 inclusive when ordering for the first time
 AIR-BAR-CLAMPING-LEVER-CONNECTING-ROD ADJUSTABLE SLEEVE
 a4G7, its LOCK NUT a4G8 or the WASHER a4G9 all three of these
 parts and also the CONNECTING ROD 4G must be ordered together.

*Air-bar-clamping-lever-connecting-rod Operating Lever, see
 Paper-tower Lever.....* 19G

AIR-BAR SHAFT.....	5G	1.10
distance collar.....	5G1	.10
headless screw (end).....	5G2	.03
" " nut.....	5G3	.04
" " lock nut.....	5G4	.04
" " washer.....	5G5	.03
AIR-BAR SHAFT 5G (complete).....		1.34
<i>Air-bar-shaft Air Connection, see Air-pipe Connection....</i>	6G1	
<i>Air-bar-valve Operating Rod, see Air-bar Clamping Lever</i>	3G	
AIR PIPE (to Air Bar).....	6G	.50
connection.....	6G1	.65
AIR PIPE 6G (complete).....		1.15
<i>Air Pipe.....</i>	a1H	
<i>Air Pipe, see Air-tower-housing Air Pipe.....</i>	1G2	
<i>Air Pipe, see Main-stand Air Pipe.....</i>	36E1	
AIR-PIPE COVER (right).....	7G	.25
screw (3).....	7G1	.02
AIR-PIPE COVER 7G (complete).....		.31
AIR-PIPE COVER (left).....	8G	.75
screw (3).....	8G1	.02
guide (for Winding Spool).....(1)...	8G2	
" rivet (copper) (4).....(1)...	8G3	.01
" screw (2).....	8G4	.03
AIR-PIPE COVER 8G (complete).....		.87
<i>Air Shaft, see Air-bar Shaft.....</i>	5G	
<i>Air Supply Pipe, see Air Pipe.....</i>	6G	
AIR-TOWER HOUSING (front, with bearing for Pawl Ring)	1G	11.00
(rear).....	1G1	6.25
air pipe (31).....	1G2	.15
base.....	a1G3	2.10
" screw (between Housings, left).....	1G4	.07
" right).....	a1G22	.07
cross girt (brass).....	1G5	4.75
" cap (brass).....	1G6	2.75
" " dowel.....	1G7	.04
" " " screw (top) (2).....	1G8	.06
" " " (side) (2).....	1G9	.05
dowel (to Cross Girt) (4).....	1G10	.03
screw (to Base) (4).....	1G11	.05
" (to Cross Girt) (3).....	1G12	.05
" (to Cross Girt, thin head).....	1G13	.05
" (to Main Stand) (4).....	1G14	.06
stud (for Paper-tower Lever).....	1G16	.20
" washer.....	1G17	.05
" nut.....	1G18	.05
stop pin (for Paper-feed Locking Lever).....	1G19	.02
stop screw (for Ring) (2).....	1G20	.04
" lock nut (2).....	1G21	.04
AIR-TOWER HOUSING a1G (complete).....		36.00

<i>Air-tower-housing Cover, for Air Pipe, see Air-pipe Cover.</i>	7G	
<i>Air-tower-housing Pawl, see Paper-feed Pawl.</i>	13G	
<i>Air-tower-housing Ring, see Paper-feed-pawl Ring.</i>	14G	
<i>Air-tower-housing Stud, for Pawl, see Paper-feed-pawl Stud.</i>	15G	
<i>Air-tower-housing Spring Box, for Winding Spool, see Winding-spool Spring Box.</i>	25G	
<i>Air-tower-housing Spring Post, replaced by Matrix-jaw-longs-stud Arm, for Paper Winding Spring.</i>	a39E3	

BASKET

bottom.....	9G1	
leather strip (front).....	9G2	
" " (rear).....	9G3	
rivet (6).....	9G4	
side plate (2).....	9G5	
wire connecting rod (2).....	9G6	
BASKET 9G (complete).....		4.00

Feed Pawl, see Paper-feed Pawl...... 13G

NAME PLATE.....	10G	.60
screw (4).....	10G1	.03
NAME PLATE 10G (complete).....		.72

Paper Basket, see Basket...... 9G

PAPER-FEED LOCKING LEVER (for stopping movement of paper).....	12G	.55
stud.....	12G1	.03
PAPER-FEED LOCKING LEVER 12G (complete)		.58

Paper-feed-locking-lever Stop Pin, see Air-tower-housing Stop Pin, for Paper-feed Locking Lever...... 1G19

PAPER-FEED PAWL		
(locking, upper).....	1.. 13G1	6.50
" hub.....	1.. 13G2	
" operating link.....	1.. 13G3	
" " " pin (also Spring Post).(1).....	13G4	.03
" " " bushing.....(1).....	13G5	.05
(feeding, lower).....	1.. 13G6	
connecting link (2).....	1.. 13G7	
" " rivet (2).....(1).....	13G8	.03
" spring post.....(1).....	13G9	.03
spring.....	13G10	.05
PAPER-FEED PAWL 13G (complete).....		6.55

Paper-feed-pawl Ratchet, see Pin-wheel Ratchet...... 20G4

PAPER-FEED-PAWL RING.....	1.. 14G	1.85
pin (Stop for Feeding Pawl).....(1).....	14G1	.01
friction spring (2).....	14G2	.05
" " screw (2).....	14G3	.12
" " washer (2).....	14G4	.03
PAPER-FEED-PAWL RING 14G (complete).....		2.25

<i>Paper-feed-pawl-ring Stop Screw, in Housing, see Air-tower-housing Stop Screw, for Ring.</i>	1G20	
<i>Paper-feed-pawl Stop Pin, in Ring, see Paper-feed-pawl-ring Pin.</i>	14G1	
PAPER-FEED-PAWL STUD (lower, in Pawl Ring).....	15G	.03
PAPER-FEED-PAWL STUD (upper, in Air-tower Housing). nut.....	16G 16G1	.20 .04
PAPER-FEED-PAWL STUD 16G (complete).....		.24
<i>Paper-feed Pin Wheel, see Pin Wheel.</i>	20G	
PAPER-FEED SPRING BOX		
connection (upper).....	1.. 17G1	.85
pin.....	(1).. 17G2	.12
" cotter.....	17G3	.00
" washer.....	17G4	.03
spring.....	17G5	.10
" rod.....	17G6	1.00
" nut.....	17G7	.05
" " washer (2).....	17G8	.05
tube.....	17G9	1.15
PAPER-FEED SPRING BOX 17G (complete).....		3.28
<i>Paper-feed-spring-box Operating Lever, see Paper-tower Lever.</i>	19G	
PAPER TENSION BAR (large, right).....	18G	.35
arm (right) (2).....	18G1	.15
(small, left).....	18G2	.30
arm (left) (2).....	18G3	.20
arm fulcrum pin.....	18G4	.02
" distance sleeve.....	18G5	.10
" guide plate.....	18G6	.35
connecting link (2).....	18G7	.05
" " fulcrum pin (in Housing).....	18G8	.15
" " pin (to lift Tension Bar).....	18G9	.02
PAPER TENSION BAR 18G (complete).....		2.09
<i>Paper-tower Housing, see Air-tower Housing.</i>	1G	
PAPER-TOWER LEVER.....	19G	1.00
stud (for Clamping-lever Connecting Rod).....	19G1	.15
" nut.....	19G2	.04
" (for Pawl Spring Box and Operating Rod).....	19G3	.15
" nut.....	19G4	.05
PAPER-TOWER LEVER 19G (complete).....		1.39
<i>Paper-tower-lever Operating Rod, see Paper-tower Operating Rod.</i>	54E	
<i>Paper-tower-lever Stud, see Air-tower-housing Stud, for Paper-tower Lever.</i>	1G16	
<i>Paper Winding Spool, see Winding Spool.</i>	21G	
<i>Pawl, see Paper-feed Pawl.</i>	13G	
<i>Pawl Spring Box, see Paper-feed Spring Box.</i>	17G	

PIN WHEEL (rear).....	1..	20G	14.00
(front).....	1..	20G1	
pin (96).....	(1)..	20G2	.01
shaft.....	1..	20G3	
ratchet.....	(1)..	20G4	2.00
PIN WHEEL 20G (complete).....			14.00
Ratchet, see Pin-wheel Ratchet.....		20G4	
Spool Basket, see Basket.....		9G	
Tension Bar, see Paper Tension Bar.....		18G	
Valve Body, see Air Bar.....		2G	
WINDING SPOOL			
flange.....	1..	21G1	3.40
bushing (for Driving Pin).....	1..	21G2	
spring (for holding paper).....	1..	21G3	
plug (rear).....		21G4	.95
shaft.....	2..	21G5	1.00
head.....	2..	21G6	
driving disc.....	3..	21G7	.50
" pin.....		21G8	
" lock nut.....		21G9	.05
spring.....		21G10	.10
abutment.....		21G11	.25
tube.....		21G12	.25
tube.....	1..	21G13	
WINDING SPOOL 21G (complete).....			6.50
WINDING-SPOOL DRIVING DISC.....	1..	22G	.90
shaft.....	1..	22G1	
nut.....		22G2	.05
WINDING-SPOOL DRIVING DISC 22G (complete).....			.95
WINDING-SPOOL DRIVING RATCHET.....		23G	2.25
pawl.....	1..	23G1	1.25
arm.....	1..	23G2	
operating finger.....		23G3	.20
stop pin.....	(1)..	23G4	.01
pin.....	(1)..	23G5	.03
WINDING-SPOOL DRIVING RATCHET 23G (c'pl't).....			3.70
Winding-spool Guide, on Pipe Cover, see Air-pipe-cover Guide.....		8G2	
WINDING-SPOOL OPERATING SPRING.....		24G	.08
Winding-spool-operating-spring Arm, see Matrix-jaw-tongs-stud Arm, for Paper Winding Spring.....		a39E3	
WINDING-SPOOL SPRING BOX (discarded) (cast on 1G1).....		25G	
plunger.....		25G1	.50
button.....		25G2	.45
cotter.....		25G3	.00
spring.....		25G4	.05
rivet (to Housing) (discarded).....			
WINDING-SPOOL-SPRING-BOX PLUNGER 25G1 (c'pl't).....			1.00
[Casting Machine] 62			

H GROUP

Mechanism for melting metal and forcing it into the Mold; also all piping, connections, etc., except the Air Pipes in the Main Stand and Air Tower and the Air Pipe connected to the Air-bar Shaft.

Air Pipe, follows Air Cock a2H..... a1H

AIR COCK (for air supply, 1-8").....	a2H	.60
(for air blast).....	2H1	.60
AIR COCK a2H (complete).....		1.20

For machines 103 to 501 inclusive and 503 to 506
inclusive order:

	Improvement No. 6
AIR COCK (for air supply, 1-8").....	2H
AIR COCK 2H (complete).....	1.20

AIR PIPE (copper, .190" x 1 1-2").....	a1H	.10
(.190" x 19").....	a1H1	.40
(iron, 1-8" x 1") (2).....	1H2	.05
(" 1-8" x 2").....	1H3	.08
(" 1-8" x 3 7-8").....	a1H4	.10
(" 1-8" x 8 1-8").....	a1H5	.16
(" 1-8" x 24").....	a1H13	.25
elbow (1-8") (4).....	1H6	.05
expansion elbow.....	1H7	.35
" " nut.....	1H8	.08
" " packing (leather) (3).....	1H9	.02
tee (1-8").....	1H11	.05
union (brass, .190") (2).....	1H12	.04
" (iron, 1-8").....	a1H14	.12
" packing (rubber).....	a1H15	.01
AIR PIPE a1H (complete).....		2.14

For machines 103 to 501 inclusive and 503 to 506
inclusive order:

Inclusive order		Improvement No. 6
AIR PIPE (copper, .190" x 2").....		1H .10
(.190" x 28 1-4").....		1H1 .60
(iron, 1-8" x 2") (2).....		1H3 .08
(" 1-8" x 7 3-4").....		1H4 .15
(" 1-8" x 16 1-8").....		1H5 .20
plug (1-8").....		1H10 .04
AIR PIPE 1H (complete).....		2.17

Omit a1H13, a1H14 and a1H15.

Air Cock, precedes Air Pipe a1H..... a2H
Air Pipe, see Air Pipe to Air Bar..... 6G

Air Pipe, see Air-tower-housing Air Pipe..... 1G2
Air Pipe, see Main-stand Air Pipe..... 36E1

For machines 103 to 501 inclusive and 503 to 506

	Improvement No. 6	
inclusive order:		
AIR-PIPE CLAMP (2).....	3H	.18
screw (2).....	3H1	.06
AIR-PIPE CLAMP 3H (complete) each.....		.24

Bell Crank operating Pump, see Pump Bell Crank..... 21H
Burner, see Gas Burner..... 4H
Casing, for Metal Pot, see Melting-pot Casing..... 12H1
Chimney, see Melting-pot Chimney..... 13H

GAS BURNER (for Melting Pot) (2).....	4H	1.35
cone (2).....	4H1	.50
GAS BURNER 4H (complete) each.....		1.85

For machines 103 to 501 inclusive and 503 to 506

	Improvement No. 6	
inclusive order:		
GAS BURNER (for light in Base) (1-8").....	5H	.15
tip.....	5H1	.20
GAS BURNER 5H (complete).....		.35

GAS-BURNER STAND.....	a6H	2.50
bolt.....	6H1	.20
nut.....	6H2	.08
set screw (for Nipple) (2).....	6H3	.06
GAS-BURNER STAND a6H (complete).....		2.90

For machines 103 to 501 inclusive when ordering for the first time
 GAS-BURNER STAND a6H order also the two GAS NIPPLES a8H.

GAS COCK (1-4" x 1-4") (with close Nipple, for gas supply)	a7H	.40
--	-----	-----

For machines 103 to 501 inclusive and 503 to 506

	Improvement No. 6	
inclusive order:		
GAS COCK (1-4" x 3-8") (with close Nipple, for gas supply).....	7H	.40

GAS HOSE (1-2" x 18").....	49H	.40
GAS HOSE (3-8" x 15 3-4").....	50H	.35
GAS HOSE (3-8" x 19 1-2").....	51H	.40
GAS NIPPLE (in Gas-burner Stand) (2).....	a8H	.10

For machines 103 to 501 inclusive when ordering for the first time
 the GAS NIPPLES a8H, the holes for these in the old GAS-BURNER
 STAND 6H must be opened out to receive them.

Gas-nipple Set Screw, in Gas-burner Stand, see Gas-burner-stand Set Screw.....	6H3
--	-----

GAS PIPE (iron, 1-4" x 1 3-8") (2).....	9H	.05
{ " 1-4" x 3 3-4").....	a9H1	.09
{ " 1-4" x 18 5-8").....	a9H2	.25
elbow (1-4") (4).....	9H5	.05
nipple (1-4" brass, for Hose).....	9H7	.15
union (1-4", iron).....	a9H8	.14
" packing (rubber).....	a9H9	.01
GAS PIPE 9H (complete).....		.94

For machines 103 to 501 inclusive and 503 to 506		
inclusive order:		Improvement No. 6
GAS PIPE (iron, 1-4" x 1 3-8") (1).....	9H	.05
{ " 1-4" x 8 1-8").....	9H1	.15
{ " 1-4" x 9 3-4").....	9H2	.15
{ " 1-4" x 1 1-2").....	9H3	.05
{ " 1-8" x 1").....	9H4	.05
elbow (1-4") (3).....	9H5	.05
" (1-4" with 1-8" side outlet).....	9H6	.20
nipple (1-4" brass, for Hose).....	9H7	.15
GAS PIPE 9H (complete).....		.95
Omit a9H8 and a9H9.		

Gas-pipe Bracket, see Pipe Bracket.....a16H

GAS REGULATING VALVE (2).....	1.. 10H	2.50
handle.....	1.. 10H1	
spring.....	1.. 10H2	
body.....	1.. 10H3	
nipple (outlet).....	(1) 10H4	.15
GAS REGULATING VALVE 10H (complete) each..		2.50

GAS-REGULATING-VALVE STAND.....	11H	.95
elbow (1-4", 45°).....	11H1	.05
nipple (for Hose).....	11H2	.15
pipe (1-4" x 1 3-8").....	11H3	.05
screw (2).....	11H4	.07
GAS-REGULATING-VALVE STAND 11H (complete)..		1.34

Hose, see Gas Hose.....49H

For machines equipped with Display-type Attachment order:		
	Improvement No. 13	
LATCH.....	8S	2.00
plate.....	8S1	.25
" screw (2).....	8S2	.04
LATCH 8S (complete).....		2.33
LATCH ABUTMENT.....	9S	2.00
plate.....	9S1	.25
" screw (2).....	9S2	.04
LATCH ABUTMENT 9S (complete).....		2.33
LATCH-ABUTMENT SPRING.....	10S	.12

For machines equipped with Display-type Attachment order:			Improvement No. 13
LATCH PIN.....	1..	11S	2.00
cotter.....	1..	11S1	.00
plate.....	1..	11S2	
spring pin.....	(1)..	11S3	.05
stop pin.....	(1)..	11S4	.05
LATCH PIN 11S (complete).....			2.00
LATCH SPRING.....		12S	.05
LATCH STAND.....		13S	.75
shaft.....	1..	13S1	2.25
arm.....	1..	13S2	
nut.....		13S3	.08
lock nut.....		13S4	.08
spring.....		13S5	.10
spring pin (for Latch Spring).....		13S6	.05
LATCH STAND 13S (complete).....			3.31
MELTING POT.....		12H	5.00
casing (inside).....		12H1	7.50
(outside).....		12H2	12.00
plate (large).....		12H3	1.25
screw (8).....		12H4	.06
(small).....		12H5	.85
screw (3).....		12H6	.06
screw (right).....		12H8	.12
stud (2).....		a12H9	.08
nut (2).....		a12H10	.05
washer (2).....		a12H11	.05
MELTING POT a12H (complete, with Magnesia Packing).....			32.25
For machines 103 to 578 inclusive and 580 to 662 inclusive order:			Improvement No. 9
MELTING POT casing screw (left) (2).....		12H7	.05
Omit a12H9, a12H10 and a12H11.			
Melting-pot Adjusting Screw, see Swing-frame Adjusting Screw.....			a37H7
MELTING-POT CHIMNEY.....		13H	1.50
Melting-pot-Raising Screw, see Swing-frame Screw.....			39H
Melting-pot Stand, for Pump-body Lifting Lever, see Pump-body-lifting-lever Stand.....			25H3
Melting-pot Stud, for Lifting Lever, see Pump-body-lifting-lever Stud.....			26H1
Melting-pot Swing Frame, see Swing Frame.....			a37H
Nozzle (13 threads).....		14H	.75
(special 5-8", 13 threads).....		14H1	.75

For machines equipped with Display-type Attachment order:		Improvement No. 13	
NOZZLE (13 threads).....	24S	.75	
(special 5-8", 13 threads).....	24S1	.75	

Nozzle Operating Rod, see Pump-body Operating Rod... 28H

NOZZLE SQUARING PIN..... 15H 1.75
(special for 5-8" Nozzle)..... 15H1 1.75

PIPE BRACKET.....a16H .60
screw (large) (2).....a16H1 .08
screw (small).....a16H3 .05
PIPE BRACKET a16H (complete)..... .81

For machines 103 to 501 inclusive and 503 to 506 inclusive order:		Improvement No. 6	
PIPE BRACKET.....	16H	.60	
screw (2).....	16H1	.06	
washer (2).....	16H2	.05	
PIPE BRACKET 16H (complete).....		.82	

PISTON..... 17H 1.75
handle.....1. 17H1 .35
" stem.....1. 17H2
" " nut.....1. 17H3
PISTON 17H (complete)..... 2.10

PISTON (.003" oversize).....a17H 1.75

For machines equipped with Display-type Attachment order:		Improvement No. 13	
PISTON.....	25S	1.75	
handle.....	25S1	.35	
" stem.....	25S2		
" " nut.....	25S3		
PISTON 25S (complete).....		2.10	
PISTON (.003" oversize).....	a25S	1.75	

Piston Guide and Stop, see Pump-body Guide..... 23H2

PISTON LEVER..... 18H 4.50
bearing (front)..... 18H1 1.00
" (rear)..... 18H2 1.00
" screw (2)..... 18H3 .05
PISTON LEVER 18H (complete)..... 6.60

Piston-lever Crosshead, see Piston-operating-rod Crosshead 19H3

Piston-lever Link, see Pump-lever Connecting Link... 32H

Piston-lever Operating Rod, see Piston Operating Rod... 19H

Piston-lever Pin, in Spring-rod Eye, see Piston-spring-rod-eye Pin 20H3

Piston-lever Spring, see Piston Spring... 20H

PISTON OPERATING ROD.....	19H	2.75
crosshead (lower, for Pump Bell Crank).....	19H1	3.00
" dowel.....	19H2	.05
" (upper, for Piston Lever)....	19H3	3.00
nut.....	19H4	.14
PISTON OPERATING ROD 19H (complete.)....		8.94
+++++ For machines equipped with Display-type Attachment order: Improvement No. 13 +++++		
PISTON-OPERATING-ROD CROSSHEAD.....	26S	3.50
stud (for depressing Nozzle).....	26S1	.20
" nut.....	26S2	.05
" " lock nut.....	26S3	.05
PISTON-LEVER-OPERATING-ROD CROSSHEAD		
26S (complete).....		3.80
+++++ PISTON-OPERATING-ROD CROSSHEAD 26S (complete)..... +++++		
<i>Piston-operating-rod-crosshead Stop, see Pump-body-spring-rod-crosshead Stop.....</i>	31H8	
<i>Piston-lever Spring, see Piston Spring.....</i>	20H	
PISTON SPRING.....	20H	1.00
rod.....	20H1	1.75
" eye.....	20H2	.55
" " pin.....	20H3	.15
" " cotter.....	20H4	.00
" nut.....	20H5	.11
PISTON SPRING 20H (complete).....		3.56
+++++ For machines equipped with Display-type Attachment order: Improvement No. 13 +++++		
PISTON-SPRING-ROD EYE.....	27S	.75
+++++ PISTON-SPRING-ROD EYE..... +++++		
<i>Piston Stop, see Pump-body Guide.....</i>	23H2	
<i>Port-opening Regulating Screw, see Pump-body Regulating Screw.....</i>	23H5	
PUMP BELL CRANK.....	21H	3.50
shaft.....	21H1	.45
" set screw.....	21H2	.13
PUMP BELL CRANK 21H (complete).....		4.08
PUMP-BELL-CRANK CONNECTING ROD.....	22H	.45
eye.....	22H1	1.00
" lock nut.....	22H2	.07
" (L. H.).....	22H3	1.00
" lock nut (L. H.).....	22H4	.07
" pin (2).....	22H5	.10
" " cotter (4).....	22H6	.00
PUMP-BELL-CRANK CONNECTING ROD 22H (c'pl't). ..		2.79
<i>Pump-bell-crank Pin, in Connecting-rod Eye, see Pump-bell-crank-connecting-rod-eye Pin.....</i>	22H5	
<i>Pump-bell-crank-shaft Bearing, see Swing-frame Post....</i>	38H	

PUMP BODY.....	1..	23H	9.50
bearing (Nozzle end for Lifting Lever).....	(1)...	23H1	.10
guide (and Stop, for Piston).....	(1)...	23H2	1.00
" screw (2).....	(1)...	23H3	.07
plug (bottom).....	(1)...	23H4	.50
regulating screw (for flow of metal).....	(1)...	23H5	.50
valve.....	(1)...	23H6	.45
PUMP BODY 23H (complete).....			9.50

If PUMP BODY 23H becomes worn so that PISTON 17H fits too loosely use oversize PISTON a17H. When this PISTON becomes too loose exchange PUMP BODY for a repaired PUMP BODY a23H (a Body that has been re-bored and bushed). NOTE: This rebushing *can not* be done without special tools to preserve the PISTON alignment.

Price for PUMP BODY exchange..... 5.00

PUMP-BODY LEVER.....	24H	4.50
bearing (front).....	24H1	1.00
" (rear).....	24H2	1.00
" screw (2).....	24H3	.05

PUMP-BODY LEVER 24H (complete)..... 6.60

<i>Pump-body-lever Crosshead, see Pump-body-spring-rod Crosshead.....</i>	31H2	
<i>Pump-body-lever Link, see Pump-lever Connecting Link..</i>	32H	
<i>Pump-body-lever Pin, in Crosshead Eye, see Pump-body-spring-rod-crosshead-eye Pin.....</i>	31H5	

PUMP-BODY LIFTING LEVER (Piston end).....	25H	4.00
locating latch.....	25H1	.25
" screw.....	25H2	.05
stand (front, on Pot).....	25H3	.95
" (rear, on Pot).....	25H4	2.50
" cap.....	25H5	.10
" screw (2).....	25H6	.06
" screw (6).....	25H7	.06

PUMP-BODY LIFTING LEVER 25H (complete).. 8.11

PUMP-BODY LIFTING LEVER (Nozzle end).....	26H	3.25
stud.....	26H1	.40
" nut.....	26H2	.07

PUMP-BODY LIFTING LEVER 26H (complete).. 3.72

For machines 1123 and following order:

PUMP-BODY LIFTING LEVER (Nozzle end).....	a26H	3.25
pin (bearing for Pump Body).....	a26H3	.10
" nut.....	a26H4	.04
PUMP-BODY LIFTING LEVER 26H (complete).....		3.86

These parts are interchangeable if furnished together.

PUMP-BODY LIFTING SPRING.....	a27H	.20
plate (upper).....	27H1	.03
" (lower).....	a27H2	.06

PUMP-BODY LIFTING SPRING 27H (complete).. .29

For machines 103 to 1593 when ordering PUMP-BODY LIFTING SPRING a27H for the first time order also PUMP-BODY-LIFTING-SPRING PLATE (lower) a27H2; when ordering the PLATE a27H2 the old LIFTING SPRING 27H may be made to conform to the new LIFTING SPRING a27H by cutting off two coils from the bottom of the SPRING.

NOTE: All machines equipped with the Display-type Attachment have the improved parts.

*Pump-body-lifting-spring Post, in Swing Frame, see
Swing-frame Spring Post..... 37H6*

PUMP-BODY OPERATING ROD.....	28H	.35
distance sleeve.....	28H1	.10
extension (for Spring Plate)....	28H2	.25
" pin.....	28H3	.02
nut (3).....	28H4	.10
" lock nut (2).....	28H5	.06
washer.....	28H6	.05

PUMP-BODY OPERATING ROD 28H (complete). 1.19

For machines 913 and following order:

PUMP-BODY OPERATING ROD.....	a28H	.35
extension (for Spring Plate) a28H2		.25

Omit SLEEVE 28H1 and WASHER 28H6.

These parts are interchangeable if furnished together. To equip machines 103 to 912 inclusive with the improved End a28H2, cut off the lower end of the OPERATING ROD 28H to make its total length 5 5-8".

PUMP-BODY-OPERATING-ROD LEVER.....	29H	1.05
" pin.....	29H1	.15
" cotter.....	29H2	.00
stand.....	29H3	.95

PUMP-BODY-OPERATING-ROD LEVER 29H (c'pl't). 2.15

PUMP-BODY-OPERATING-ROD-LEVER-STAND SUPPORT....	30H	1.50
screw (2).....	30H1	.08

PUMP-BODY-OPERATING-ROD-LEVER-STAND SUP-
PORT 30H (complete)..... 1.66

PUMP-BODY SPRING.....	31H	1.00
rod.....	31H1	2.25
" crosshead.....	31H2	2.50
" " eye.....	31H3	.65
" " nut.....	31H4	.08
" " pin.....	31H5	.15
" " cotter.....	31H6	.00
" " washer.....	31H7	.07
" " stop.....	31H8	.90
" " nut.....	31H9	.11
" nut (upper).....	31H10	.11
" sleeve.....	31H11	.50
" washer.....	31H12	.10
" stop nut (bottom) (2).....	31H13	.14

PUMP-BODY SPRING 31H (complete)..... 8.70
 'Casting Machine] 70

For machines equipped with Display-type Attachment order:			Improvement No. 13
PUMP-BODY-SPRING-ROD-CROSSHEAD EYE.....	32S		.65
PUMP-BODY-SPRING-ROD STOP BLOCK.....1..	33S		1.00
spring post (in Stop Block).....(1) ..	33S1		.03
stud.....	33S2		.25
" washer.....	33S3		.10
PUMP-BODY-SPRING-ROD STOP BLOCK 33S (c'pl't).			1.35
PUMP-BODY-SPRING-ROD-STOP-BLOCK SPRING.....	34S		.08
PUMP-BODY-SPRING-ROD-STOP-BLOCK-SPRING POST (in 38H).....	35S		.10
<i>Pump-cam-lever-connecting-rod Lever, see Pump Operating Lever.....</i>			
	34H		
PUMP-LEVER CONNECTING LINK (between Levers 18H and 24H).....	32H		2.25
pin (2).....	32H1		20
" cotter (2).....	32H2		.00
plunger.....	32H3		.10
" spring.....	32H4		.08
PUMP-LEVER CONNECTING LINK 32H (complete)			2.83
Pump Rocker Arm, follows 34H.....	33H		
PUMP OPERATING LEVER (engaged by Pump-rocker-arm Latch).....1..	34H		1.85
clamp bolt.....(1) ..	34H1		.08
PUMP OPERATING LEVER 34H (complete).....			1.85
<i>Pump-operating-lever Pin, for Connecting Rod, see Pump-cam-lever-connecting-rod-eye Pin.....</i>			
	68E5		
Pump Plunger, see Piston.....	17H		
PUMP ROCKER ARM.....	33H		7.00
latch.....	33H1		2.00
" pin.....	33H2		.10
" cotter (2).....	33H3		.00
plunger.....	33H4		.25
" cotter.....	33H5		.00
" spring.....	33H6		.10
shaft.....	33H7		1.00
PUMP ROCKER ARM 33H (complete).....			10.45
For machines 1125 and following order:			
PUMP ROCKER ARM.....	a33H		7.00
plunger.....	a33H4		.25
spring.....	a33H6		.10
plug.....	a33H8		.40
PUMP ROCKER ARM 33H (complete).....			10.85
Omit COTTER 33H5.			
These parts are interchangeable if furnished together			

Pump-rocker-arm-locking-latch Trip, see Pump-trip Tube..a49D
Pump-rocker-arm Pin, in Bell-crank-connecting-rod Eye,
see Pump-bell-crank-connecting-rod-eye Pin..... 22H5
Pump Operating Lever..... 34H

PUMP TRIP (hand)		
rod.....	1.. 35H1	1.27
" cotter.....	a35H10	.00
" nut.....	35H2	.05
" washer.....	35H3	.05
" plate.....	(1).. 35H4	.25
" rivet (2).....	(1).. a35H5	.01
spring box.....	35H6	1.00
" handle.....	35H7	.35
" nut.....	35H8	.45
" spring.....	35H9	.12
PUMP TRIP 35H (complete).....		3.29

Note: When the Rivets a35H5 are ordered for machines 103 to 1602 inclusive open out the tap holes in the Rod 35H1 to receive them.

For machines 1123 and following order:

PUMP TRIP rod.....	a35H1	1.27
" stop nut.....	b35H10	.05
" washer.....	a35H11	.05

PUMP TRIP 35H (complete)..... 3.39

These improved parts may be applied to any machine if furnished together.

For machines 103 to 501 inclusive order:

PUMP-TRIP CATCH PLATE (on Main Galley Stand)...	36H	.10
screw (2).....	36H1	.05
PUMP-TRIP CATCH PLATE 36H (complete)....		.20

Pump-trip Tube..... 49D

Regulating Screw, for flow of metal, see Pump-body Regulating Screw..... 23H5

Regulating Valve, see Gas Regulating Valve..... 10H

Squaring Pin, see Nozzle Squaring Pin..... 15H

SWING FRAME (for Melting Pot).....	a37H	45.00
guide block.....	37H1	.95
" screw (2).....	37H2	.06
handle.....	1.. 37H3	.35
" stem.....	1.. 37H4	
" nut.....	1.. 37H5	
spring post (for Pump-body Lifting Spring).....	37H6	.05
adjusting screw (for Casing, long) (2).....	a37H7	.03
" short (2).....	a37H8	.03
SWING FRAME a37H (complete).....		46.59

Swing-frame Guide Pin, in Post, see Swing-frame-post Guide Pin..... 38H3

SWING-FRAME POST.....	38H	50.00
bolt (to Main Stand)	38H1	.14
clamp bolt.....	38H2	.10
guide pin (for Swing Frame).....	38H3	.12
screw (lower).....	38H4	.25
" (upper).....	38H5	.10
SWING-FRAME POST 38H (complete.).....		50.71
SWING-FRAME SCREW (for raising and lowering Pot)....	39H	9.00
nut.....	39H1	.11
washer.....	39H2	.20
" pin.....	39H3	.02
SWING-FRAME SCREW 39H (complete).....		9.33
SWING-FRAME-SCREW CRANK.....1..	40H	2.50
clamp bolt.....(1)...	40H1	.08
handle.....(1)...	40H2	.85
SWING-FRAME-SCREW CRANK 40H (complete)..		2.50
THERMOMETER.....	41H	5.00
support.....	a41H2	.25
" hook.....	a41H3	.16
" " nut.....	a41H4	.04
" lock nut.....	a41H5	.05
THERMOMETER 41 H(complete).....		5.50
Valve, Air, see Air Cock.....	a2H	
Valve, Gas, see Gas Cock.....	a7H	
Valve, Gas Regulating, see Gas Regulating Valve.....	10H	
Valve, Water Escape, see Water Escape Valve.....	42H	
Valve, Water Supply, see Water Supply Valve.....	48H	
WATER ESCAPE VALVE.....	42H	
body.....	42H1	
gland.....	42H2	
" packing (rubber).....	42H3	
" " ring.....	42H4	
(regulating).....	42H5	
handle.....	42H6	
" rivet.....	42H7	
WATER ESCAPE VALVE 42H (complete).....		2.00
WATER PIPE		
(copper, drain from Main Stand, 5-16" x 9 1-2")...	a43H	.30
(" " " " " 5-16" x 18 7-8")..	a43H1	.60
(" " " " " 190" x 1 3-4")..	a43H3	.12
union (5-16") (2).....	43H2	.08
WATER PIPE a43H (complete).....		1.18
~~~~~		
For machines 103 to 501 inclusive and 503 to 506		
inclusive order:	Improvement No. 6	
WATER PIPE		
(copper, drain from Main Stand, 5-16" x 2")....	43H	.15
(copper, drain from Main Stand, 5-16" x 31 1-8")	43H1	.95
union (5-16") (1).....	43H2	.08
WATER PIPE 43H (complete).....		1.18
Omit a43H3.		



WATER PIPE (copper, drain from Mold, .190" x 1 1-4")..	44H	.10
{ " " " " .190" x 20 1-2")a44H1		.40
{ " " " " .190" x 14 1-2")a44H3		.30
union (.190") (2).....	44H2	.04
WATER PIPE 44H (complete).....		.88

For machines 103 to 501 inclusive and 503 to 506

inclusive order:

Improvement No. 6

WATER PIPE		
(copper, drain from Mold, .190" x 1 1-4")..	44H	.10
{ " " " " .190" x 35").....	44H1	.70
union (.190") (1).....	44H2	.04
WATER PIPE 44H (complete).....		.84
Omit a44H3.		

WATER PIPE (copper, supply, 5-16" x 2 3-8").....	45H	.15
{ " " " 5-16" x 3").....	a45H1	.18
{ " " " 5-16" x 19 1-4").....	a45H3	.60
(iron, supply, 1-8" x 3 3-8").....	a45H4	.10
{ " " " 1-8" x 3 7-8").....	a45H5	.10
{ " " " 1-8" x 15 1-8").....	a45H6	.20
{ " " " 1-8" x 18").....	a45H7	.24
elbow (1-8") (3).....	a45H8	.05
union (copper, 5-16") (2).....	45H2	.08
{ (iron, 1-8").....	a45H9	.12
" packing (rubber).....	a45H10	.01
WATER PIPE 45H (complete).....		2.01

For machines 103 to 501 inclusive and 503 to 506

inclusive order:

Improvement No. 6

WATER PIPE (copper, supply, 5-16" x 2 3-8").....	45H	.15
{ " " " 5-16" x 16 13-16")... ..	45H1	.55
union (5-16") (1.).....	45H2	.08
WATER PIPE 45H (complete).....		.78
Omit parts a45H3 to a45H10 inclusive.		

#### WATER PIPE

(iron, drain from Pipe Bracket, 3-8" x 3 3-8").....	a46H	.12
{ " " " " 3-8" x 4 7-8").....	a46H1	.14
{ " " " " 3-8" x 14 1-2").....	a46H2	.23
{ " " " " 3-8" x 18").....	a46H3	.28
elbow (iron, 3-8") (3).....	a46H4	.06
union (iron, 3-8").....	a46H5	.16
" packing (rubber).....	a46H6	.01
WATER PIPE a46H (complete).....		1.12

For machines 103 to 501 inclusive and 503 to 506

inclusive order:

Improvement No. 6

WATER-PIPE CLAMP.....	46H	.15
screw.....	46H1	.06
WATER-PIPE CLAMP 46H (complete).....		.21
Omit parts a46H2 to a46H6 inclusive.		

Water Pipe Bracket, see Pipe Bracket.....a16H

WATER-PIPE CONNECTION (side, on Main Stand).....	47H	.60
screw (3).....	47H1	.04
WATER-PIPE CONNECTION 47H (complete)....		.72
WATER SUPPLY COCK.....	a52H	.60
WATER SUPPLY VALVE		
body.....	48H1	
gland (2).....	48H2	
" packing (rubber) (2).....	48H3	
" ring (2).....	48H4	
(regulating).....	48H5	
" handle.....	48H6	
" rivet.....	48H7	
(shut off).....	48H8	
" handle.....	48H9	
" rivet.....	48H10	
WATER SUPPLY VALVE 48H (complete).....		3.00
Gas Hose (1-2" x 18"), follows Gas Cock a7H .....	49H	
Gas Hose (3-8" x 15 3-4").....	50H	
Gas Hose (3-8" x 19 1-2").....	51H	
Water Supply Cock, follows Water-pipe Connection 47H..	a52H	





## CASTING MACHINE PRICES APPENDIX

### Improvement No. 1

In effect on machines 321, 502, 520 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: Improved adjustment of the Pin Jaws and Matrix Jaws by giving independent motion to the Tongs in the B and C groups, and to provide a lock on the Matrix-jaw-stop-rack Locking Bars to hold them in the Stop Racks positively while the Matrix Jaws are closing.

To equip machines 103 to 320 inclusive, 322 to 501 inclusive and 503 to 519 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

MATRIX-JAW STOP RACK (front).....	a12 B	3.50
MATRIX-JAW-STOP-RACK LOCKING BAR a13B (complete).. <td></td> <td>2.50</td>		2.50
MATRIX-JAW STOP RACK (rear).....	a12 C	3.00
MATRIX-JAW-STOP-RACK LOCKING BAR a13C (complete).. <td></td> <td>2.16</td>		2.16
AIR-PIN BLOCK shoe (for front Locking Bar).....	a3D6	.35
" screw (2).....	a3D7	.05
guide screw.....	a3D11	.08
JAW-TONGS BELL CRANK (lower).....	1..a21 E	10.00
ball stud.....	(1)..a21 E1	.30
(upper).....	2..a21 E10	9.00
ball stud.....	(2)..a21 E11	.30
JAW-TONGS-CAM LEVER a24E (complete).....		14.94
JAW-TONGS SPRING BOX a26E (complete).....		20.04
JAW-TONGS-SPRING-BOX BALL SOCKET a27E (complete).. <td></td> <td>.95</td>		.95
JAW-TONGS-SPRING-BOX BALL SOCKET a81E (complete).. <td></td> <td>.95</td>		.95
LOCKING-BAR BELL CRANK b28E (complete).....		2.75
LOCKING-BAR BELL CRANK b29E (complete).....		2.75
LOCKING-BAR-BELL-CRANK STUD b32E (complete).....		.40
LOCKING-BAR-BELL-CRANK LATCH a82E (complete).....		1.00
LOCKING-BAR-BELL-CRANK LATCH a83E (complete).....		1.00

[Casting Machine] 77



LOCKING-BAR-BELL-CRANK-LATCH SPRING (2).....a84E	.10
LOCKING-BAR-BELL-CRANK-LATCH-SPRING Post (in Main Stand).....a85E	.05
LOCKING-BAR OPERATING ROD (Special).....a33E	.50
bearing block.....a33E1	.75
"          "          lock nut.....a33E2	.05
eye (Special).....a33E5	.50
"          lock nut.....a33E6	.05
stop.....a33E8	.10
MATRIX-JAW-TONGS STUD (front, in Main Stand).....a39E	1.00
MATRIX-JAW-TONGS STUD arm (for Paper Winding Spring)a39E3	.15
PIN-JAW TONGS a55E (complete).....	13.50

When applying this improvement, file a bevel on the AIR-TOWER-HOUSING BASE 1G3 to clear the JAW-TONGS-SPRING-BOX-SPRING-ROD CROSSHEAD a26E21. Bend the PAPER-TOWER OPERATING ROD 54E to clear the SPRING Box. Drill and tap the MAIN STAND for the LOCKING-BAR-BELL-CRANK-LATCH-SPRING POST a85E, and drill and taper ream it for the LOCKING-BAR-BELL-CRANK STUD b32E. Drill and tap the AIR-PIN BLOCK 3D for the AIR-PIN-BLOCK GUIDE SCREW a3D11. Shorten the JUSTIFICATION-WEDGE-LEVER FULCRUM PIN 18D to 3 1-8" in length (to clear the LATCHES a82E and a83E) and re-slot the end. The necessary tools will be loaned for these purposes.

NOTE: To give our customers the benefit of our latest improvements we will furnish all the parts for this improvement complete at a special price.....

50.00

All material replaced by this improvement must be returned to us in order to obtain this special price.

May 1, '13

Supersedes undated sheet of  
Monotype Parts and Accessories  
folioed [Casting Machine] 79

## Improvement No. 2

In effect on machines 520 and following except as noted.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To change the timing of the Locking Bars by the use of an individual Cam to operate them.

The following applies to machines to which the new Locking Bar mechanism without Latches (Improvement sheet not yet issued) is to be applied; machines not to be equipped with this new mechanism are taken care of by the notes following the individual items.

To equip machines 103 to 519 inclusive with Improvement No. 2 requires the following parts. These parts must be furnished together when ordered for the first time.

CAM-LEVER-SHAFT STAND.....	a9E	20.00
----------------------------	-----	-------

NOTE: The old STAND 9E can be altered to a9E by sawing off the lug which carried the superseded LOCKING-BAR-CAM LEVER 34E.

CAM-SHAFT STAND.....	a12EE	100.00
----------------------	-------	--------

LOCKING-BAR CAM.....	c86E	2.75
----------------------	------	------

NOTE: Machines 520 to 1602 inclusive were equipped with LOCKING-BAR CAM a86E; machines 1603 to 3862 inclusive were equipped with CAM b86E, which has a wider face than CAM a86E and when applied for the first time to previous machines requires that LOCKING-BAR-CAM LEVER c34EE (see below) be furnished also; machines 3863 and following are equipped with CAM c86E. This CAM c86E cannot be used on a machine not equipped with the new LOCKING-BAR BELL CRANKS without LATCHES; machines 3603 and following are so equipped.

NOTE: If the machine is not to be equipped with LOCKING-BAR BELL CRANKS without LATCHES order LOCKING-BAR CAM b86E.

LOCKING-BAR-CAM LEVER.....	1..c34EE	
bushing (2).....	(1)..b34E1	.18
" pin (2).....	(1)..b34E2	.01
roller.....	(1)..b34E3	.30
" pin.....	(1)..b34E6	.15
oil pipe.....	(1)..a34E7	.20

NOTE: c34EE is assembled with b34E1, b34E2, b34E3, b34E6, and a34E7 and cannot be furnished without these parts, price assembled..... 9.50

[Casting Machine] 79



NOTE: Machines 1603 and following are equipped with LOCKING-BAR-CAM LEVER c34EE, for use with LOCKING-BAR CAM b86E and c86E. Machines 520 to 1602 inclusive were equipped with a narrow faced LOCKING-BAR CAM, which, when worn, should be replaced with the wide faced CAM; this change requires the corresponding change in the LOCKING-BAR-CAM LEVER.

LOCKING-BAR-CAM-LEVER FULCRUM STUD (complete)....Xa35E	1.14
LOCKING-BAR OPERATING ROD.....b33E	.50
" eye.....c33E1*	
" lock nut.....a33E2	.05
hook.....a33E5	.50
" lock nut (L.H.).....a33E6	.05
spring.....b33E7*	
" washer.....a33E9	.05

*While these parts are listed here because they form part of the OPERATING ROD group they are not furnished as part of the Improvement No. 2 and no price is here given for them, because they form part of the Improvement of the new LOCKING BAR mechanism without LATCHES (Improvement sheet not yet issued).

NOTE: Machines 520 to 3882 inclusive were equipped with OPERATING ROD a33E; machines 3883 and following are equipped with OPERATING ROD b33E; a33E can be made b33E by drilling a new hole for adjusting. Machines 520 to 3602 inclusive had LOCKING-BAR BELL CRANKS b28E and b29E with LATCHES and were equipped with BEARING BLOCK a33E1; machines 3603 to 3882 inclusive had LOCKING-BAR BELL CRANKS c28E and c29E without LATCHES and were equipped with BEARING BLOCK b33E1; machines 3883 and following have LOCKING-BAR BELL CRANK d28E and are equipped with EYE c33E1 instead of the BEARING BLOCK. Machines 520 and following are equipped with EYE LOCK NUT a33E2, HOOK a33E5, and HOOK LOCK NUT a33E6. Machines 520 to 3882 inclusive were equipped with OPERATING-ROD SPRING a33E7; machines 3883 and following are equipped with OPERATING-ROD SPRING b33E7. Machines 2710 and following are equipped with WASHER a33E9.

NOTE: If the machine is to be equipped with this Improvement No. 2 but not with LOCKING-BAR BELL CRANK without LATCHES, order LOCKING-BAR OPERATING ROD a33E, LOCKING-BAR-OPERATING-ROD BEARING BLOCK a33E1, and LOCKING-BAR-OPERATING-ROD SPRING a33E7 instead of the corresponding parts listed above, also order LOCKING-BAR-OPERATING-ROD STOP a33E8.

**SPECIAL PRICE:** To share with our customers the benefit of our latest improvements we will make a special price on this improvement, furnished complete, of.....

85.00

NOTE: This special price is made with the understanding that a new part will not be furnished when the old part can be altered; for example, we do not furnish a new CAM-LEVER-SHAFT STAND a9E but alter the old one as described.

Casting Machine] 79A



May 1, '13

Supersedes undated sheet of  
Monotype Parts and Accessories  
folioed [Casting Machine] 80

### Improvement No. 3

In effect on machines 1203 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To handle all type from 5 to 36 point inclusive by the use of one carrier only.

To equip machines 103 to 1202 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

TYPE CARRIER (complete) Xc20B, includes the EYE 21B1B, EYE PIN 21B3, DOWEL 21B4, TYPE CLAMP (complete) Xb26B, TYPE-CLAMP SHOE (complete) Xa27B, and TYPE SUPPORT SPRING (complete) Xb31B and cannot be furnished without them.....	30.00
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------

NOTE: Machines 1203 to 2524 inclusive were equipped with TYPE CARRIER (complete) Xb20B which includes TYPE CLAMP (complete) Xa26B instead of Xb26B. To take care of kerned type the new TYPE CLAMP Xb26B was adopted on machines 2525 and following. To equip machines 1203 to 2524 inclusive with the improved CLAMP Xb26B requires that a notch be ground in the left side of the fixed TYPE BLOCK for Y MOLDS and that the lug on the TYPE BLOCK for Z MOLDS be ground off.

TYPE-CARRIER CONNECTING ROD forked eye (Cam Lever end).....	a21B5	1.00
TYPE-CARRIER SHOE (long).....	a23B	1.50
TYPE-CARRIER SHOE (short).....	a24B	.25
TYPE-PUSHER GUIDE (complete).....	Xa28B	2.26
TYPE PUSHER.....	b29BB	

NOTE: b29BB is assembled with b29B1, 29B2, 29B3, 29B4, and a29B5 and cannot be furnished without these parts, price assembled.....	6.00
------------------------------------------------------------------------------------------------------------------------------------	------

NOTE: To use the Universal TYPE CARRIER a change in TYPE PUSHER was required; this took place on machine 1203 when TYPE PUSHER a29BB having TYPE-PUSHER BLADE 29B1 was adopted. On machine 2616 the TYPE PUSHER was still further modified to clear the STOP RACK when an extra tooth was added to the latter; that TYPE PUSHER was b29BB having TYPE-PUSHER BLADE a29B1. On machine 3883 the TYPE PUSHER was again modified when the new style LOCKING BARS were adopted; this TYPE PUSHER is still symbolled b29BB because interchangeable but its BLADE is changed to b29B1 and its EYE to a29B5. Any one of these three TYPE PUSHERS will work with the Universal TYPE CARRIER.



TYPE-CARRIER-CAM LEVER extension.....a72E4 1.00

On machines 103 to 1202 inclusive the AIR-PIN BLOCK (front) 3B must be altered to take the TYPE-PUSHER GUIDE a28B. Machines 1203 to 1842 inclusive were equipped with AIR-PIN BLOCK (front) a3B which was made to take the GUIDE a28B. On machine 1843 the AIR-PIN BLOCK was again modified to take the new style fixed AIR PIN with the SPRING under it; this AIR-PIN BLOCK was b3B. On machines 3603 and following the AIR-PIN BLOCK was again modified to take the new style STOP RACKS and LOCKING BARS without LATCHES and this latest style cannot be used on machines not equipped with this improved LOCKING BAR mechanism.

On machines 103 to 1202 the MOLD-BLADE-OPERATING-ROD-SIZING-SPRING SLEEVE (outside) 16C12 must be shortened to 1 7-16".

For machines 103 and 940 inclusive order also:

MOLD-BLADE OPERATING ROD distance sleeve (between Spring Abutments).....a16C1 .15  
and shorten the OPERATING-ROD-SIZING-SPRING SLEEVE (inside) 16C11 to 2 13-32".

**SPECIAL PRICE:** To share with our Customers the benefit of our latest improvements we will furnish all the parts for this improvement complete at a special price of. 30.00

## Improvement No. 4

In effect on machines 502 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: Improved alignment by increased stroke of the Centering Pin.

To equip machines 103 to 501 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

BRIDGE LEVER.....	a2A	1.75
CARRYING FRAME guide rod cross beam.....	1.. a4A6	1.75
stud.....(1)..	a4A8	.25
CENTERING PIN.....	a5A	3.50
spring.....	a5A3	.12
" abutment (lower).....	a5A4	.25
"        " (upper).....	a5A5	.60
CENTERING-PIN STAND bushing.....	a6A5	3.00
NORMAL-WEDGE LOCKING PIN shank.....	a14B7	.20
spring.....	b14B8	.08
JUSTIFICATION-WEDGE-LEVER ARM rod (2).....	15D3	.10
TRANSFER-WEDGE-SHIFTER-LEVER ARM rod.....	57D4	.10
CENTERING-PIN CAM a13E (complete).....		5.50
CENTERING-PIN LEVER stud (for BRIDGE-LEVER LINK)...	16E4	.05

In addition to ordering the above new parts, the following parts must be altered to conform to the new requirements. Directions for altering these parts will be furnished when required.

BRIDGE LEVER connecting link.....	2A1
MATRIX-JAW-STOP-RACK LOCKING BAR (front).....	13B
NORMAL-WEDGE LOCKING PIN tube.....	14B11
TYPE PUSHER.....	29B
TYPE-PUSHER GUIDING LEVER.....	30B
AIR-PIN BLOCK (rear).....	3C
MOLD-BLADE ABUTMENT SLIDE.....	14C



GALLEY TRIP ROD.....	8D
JUSTIFICATION-WEDGE LEVER (for back, or .0005" Wedge)	13D
JUSTIFICATION-WEDGE LEVER (for front, or .0075" Wedge)	14D
PUMP-TRIP-TUBE SPRING.....	50D
CAM-SHAFT STAND.....	12E
CENTERING-PIN LEVER.....	16E

### Improvement No. 5

In effect on machines 502, 520 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To permit the use of different lengths of Galley Pans.

To equip machines 103 to 501 inclusive and 503 to 519 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

GALLEY-PAN SHELF.....	a17 F	9.00
GALLEY-PAN SUPPORT.....	a18 F	5.00
bar (2).....	a18 F1	.70
set screw (2).....	a18 F7	.07



## Improvement No. 6

In effect on machines 502, 507 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To facilitate the adjustment of the flow of water through the Mold.

To equip machines 103 to 501 inclusive and 503 to 506 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

AIR COCK (for air supply, 1-8").....	a2H	.60
AIR PIPE (copper, .190" x 1 1-2").....	a1H	.10
{ .190" x 19").....	a1H1	.40
(iron, 1-8" x 1").....	a1H2	.05
{ " 1-8" x 3 7-8").....	a1H4	.10
{ " 1-8" x 8 1-8").....	a1H5	.16
{ " 1-8" x 24").....	a1H13	.25
union (iron, 1-8").....	a1H14	.12
" packing (rubber).....	a1H15	.01
GAS COCK (1-4" x 1-4") (with close Nipple, for gas supply)	a7H	.60
GAS NIPPLE (in Gas-burner Stand) (2).....	a8H	.10
GAS PIPE (iron 1-4" x 1 3-8").....	9H	.05
{ " 1-4" x 3 3-4").....	a9H1	.09
{ " 1-4" x 18 5-8").....	a9H2	.25
elbow.....	9H5	.05
union (1-4", iron).....	a9H8	.14
" packing.....	a9H9	.01
PIPE BRACKET a16H (complete).....		.81
WATER PIPE		
(copper, drain from Main Stand, 5-16" x 9 1-2").....	a43H	.30
" " " " " 5-16" x 18 7-8").....	a43H1	.60
" " " " " .190" x 1 3-4").....	a43H3	.08
WATER PIPE (copper, drain from Mold, .190" x 20 1-2").....	a44H1	.40
{ .190" x 14 1-2").....	a44H3	.30
WATER PIPE (copper, supply, 5-16" x 3").....	a45H1	.18
{ 5-16" x 19 1-4").....	a25H3	.60
(iron, supply, 1-8" x 3 3-8").....	a45H4	.10
{ " " 1-8" x 3 7-8").....	a45H5	.10
{ " " 1-8" x 15 1-8").....	a45H6	.20
{ " " 1-8" x 18").....	a45H7	.24
elbow.....	a45H8	.05
union (copper, 5-16") (2).....	a45H2	.08
" (iron, 1-8").....	a45H9	.12
" packing, (rubber).....	a45H10	.01
WATER PIPE a46H (complete).....		1.12

[Casting Machine] 84

### Improvement No. 7

In effect on machines 502, 523 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To prevent overthrow of the Line-hook Carriage by giving a positive stop for it, and to give improved timing of its stroke.

To equip machines 103 to 501 inclusive and 503 to 522 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

GALLEY CAM.....	a14 F	18.00
LINE-HOOK OPERATING BAR.....	a21 F	2.20
locking rod.....	a21 F3	.75
LINE-HOOK-OPERATING-BAR STOP adjusting screw.....	a22 F1	.03



## Improvement No. 8

In effect on machines 502 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date _____

**Object:** Greater facility for adjusting the Micrometer Wedge.

To equip machines 103 to 501 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

MICROMETER WEDGE adjusting screw.....	a20D2	.25
"                "       spring.....	a20D3	.08
shank.....	a20D1	.10
"       nut.....	a20D5	.04

When applying this improvement the NORMAL-WEDGE-LOCKING-PIN STAND 15B must be counter-bored and tapped to receive the ADJUSTING SCREW a20D2. Directions for this alteration will be furnished when required.

In effect on machines 579 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date _____

Object: Improved adjustment of the Melting Pot for centering the Nozzle and to hold the Melting Pot firmly in position when adjusted.

To equip machines 103 to 578 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

MELTING POT casing stud (2).....	a12H9	.08
“      ” nut (2).....	a12H10	.05
“      ” washer (2).....	a12H11	.05
SWING FRAME adjusting screw (for Casing, long) (2)....	a37H7	.03
“      “      “ short) (2)....	a37H8	.03

When applying this improvement the SWING FRAME 37H must be drilled and tapped for the ADJUSTING SCREWS a37H7 and a37H8. Directions for this alteration will be furnished when required.



## Improvement No. 10

In effect on machines 502, 530 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: Improved operation of Latch for Line Support.

To equip machines 103 to 501 inclusive and 503 to 529 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

LINE-HOOK OPERATING SLIDE latch (for Line Support)...	a23 F1	.50
"    locking pin.....	a23 F2	.15
"    "    "    guide pin.	a23 F3	.01
"    "    "    spring....	a23 F4	.05

## Improvement No. 11

In effect on machines 502 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To prevent breakage of the teat on the Guide Screw 14B6 and to facilitate the adjustment of the Micrometer Wedge.

NOTE: The NORMAL-WEDGE-LOCKING-PIN STAND 15B can no longer be furnished; instead we furnish:

NORMAL-WEDGE-LOCKING-PIN STAND.....a15B      15.00

When this STAND is ordered for the first time for machines 103 to 501 inclusive the following parts must also be furnished:

NORMAL-WEDGE LOCKING PIN bushing guide screw.....a14B6      .05

MICROMETER WEDGE shank.....a20D1      .10

adjusting screw.....a20D2      .25

spring.....a20D3      .08

shank nut.....a20D5      .04

When applying a14B6 to machines 103 to 702 inclusive open the keyway in the NORMAL-WEDGE LOCKING PIN 14B and its BUSHING 14B3 to 11-64", keeping the keyway central in 14B.



## Improvement No. 12

In effect on machines 1603 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To provide a heavier return spring on the Line-hook-operating-slide Latch and to remove this Latch from the path of the Line Support at the point of rest.

To equip machines 103 to 1602 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

LINE-HOOK OPERATING SLIDE.....	b23 F	3.00
spring pin.....	a23 F11	.04
LINE-HOOK-OPERATING-SLIDE LATCH a53F (complete)....		3.20
LINE-HOOK-OPERATING-SLIDE SHOE.....	24 F	2.20
LINE-HOOK-OPERATING-SLIDE SPRING Box pin (in Operating Slide).....	a27 F2	.12

## Improvement No. 13

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To enable the Casting Machine to cast type from 14 to 36 point in addition to the smaller point sizes.

To equip any machine with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

Note: To handle type from 14 to 36 point requires the Universal Type Carrier b20B (see Improvement No. 3) in addition to the following parts.

BELT-SHIFTER EYE (forked).....	1S	1.75
BELT-SHIFTER ARM.....	2S	1.25
clamp.....	2S1	.20
" bolt.....	2S2	.08
set screw.....	2S3	.07
BELT-SHIFTER ARM 2S (complete).....		1.60

CENTERING-PIN ABUTMENT (lower).....	a3S	.35
(upper).....	a3S1	.70
CENTERING-PIN ABUTMENT a3S (complete).....		1.05

Replaces a5A4 and a5A5 when the Display-type Attachment is applied to machines 502 to 1103. Machines 1104 and following have this.

+++++ For machines 103 to 501 inclusive order: +++++		
CENTERING-PIN ABUTMENT (lower).....	3S	.20
+++++ Replaces 5A4 when the Display-type Attachment is applied to machines 103 to 501 inclusive. +++++		

CENTERING-PIN SPRING (2).....	4S	.08
abutment (lower).....1..	a4S1	2.95
" (upper).....	a4S2	2.75
" stud (2).....(1)..	4S3	.10
" nut (2).....	4S4	.04
" washer (2).....	4S5	.03
CENTERING-PIN SPRING a4S (complete).....		6.00

+++++ For machines 103 to 501 inclusive order: +++++		
CENTERING-PIN SPRING (2).....	4S	.08
abutment (lower).....1..	4S1	2.70
" (upper).....	4S2	2.50
" stud (2).....(1)..	4S3	.10
" nut (2).....	4S4	.04
" washer (2).....	4S5	.03
CENTERING-PIN SPRING 4S (complete).....		5.50
+++++		



<i>Cone Pulley, see Pulley, Cone on Cam Shaft</i> .....	29S	
COUNTERSHAFT.....	5S	3.00
cone pulley.....	5S1	4.00
key.....	5S2	.05
pulley (fast).....	5S3	5.50
key.....	5S4	.05
(loose).....	5S5	5.55
screw (for oil hole)..... (1)...	5S6	.05
COUNTERSHAFT 5S (complete).....		18.15
COUNTERSHAFT STAND.....	1.. 6S	23.20
bolt (3).....	6S1	.18
nut (3).....	6S2	.08
cap (2)..... (1)...	6S3	1.60
oiler (2).....	6S4	.15
screw (4).....	6S5	.08
COUNTERSHAFT STAND 6S (complete).....		24.60
COUNTERSHAFT TIGHTENER PULLEY.....	7S	5.00
arm.....	7S1	3.00
fulcrum stud.....	7S2	1.25
nut.....	7S3	.11
spring (inside).....	7S4	.25
(outside).....	7S5	.25
rod.....	7S6	1.50
fulcrum stud.....	7S7	.35
nut.....	7S8	.05
nut (2).....	7S9	.06
washer.....	7S10	.05
stud.....	7S11	1.00
nut.....	7S12	.11
COUNTERSHAFT TIGHTENER PULLEY 7S (c'pl't).....		13.04
<i>Fast Pulley on Cam Shaft, see Pulley, fast on Cam Shaft</i> .....	28S	
<i>Fast Pulley on Countershaft, see Countershaft Pulley, fast</i> .....	5S3	
JUSTIFICATION WEDGE (used with 47S to obtain 1-8 point sizes).....	46S	5.00
gage.....	46S1	.75
JUSTIFICATION WEDGE 46S (complete).....		5.75
LATCH.....	8S	2.00
plate.....	8S1	.25
screw (2).....	8S2	.04
LATCH 8S (complete).....		2.33
LATCH ABUTMENT.....	9S	2.00
plate.....	9S1	.25
screw (2).....	9S2	.04
LATCH ABUTMENT 9S (complete).....		2.33
LATCH-ABUTMENT SPRING.....	10S	.12

LATCH PIN.....	1..	11S	2.00
cotter.....		11S1	.00
plate.....	1..	11S2	
spring pin.....	(1)..	11S3	.05
stop pin.....	(1)..	11S4	.05
LATCH PIN 11S (complete).....			2.00
LATCH SPRING.....		12S	.05
Latch-spring Pin, see Latch-pin-plate Spring Pin.....		11S3	
Latch-spring Pin, see Latch-stand Spring Pin, for Latch Spring.....		13S6	
LATCH STAND.....		13S	.75
shaft.....	1..	13S1	2.25
arm.....	1..	13S2	
nut.....		13S3	.08
" lock nut.....		13S4	.08
spring.....		13S5	.10
spring pin (for Latch Spring).....		13S6	.05
LATCH STAND 13S (complete).....			3.31
Latch-stand-shaft-arm Guide, see Pump-body-spring-rod-crosshead Eye.....		32S	
Latch-stand-shaft Sleeve, see Latch Abutment.....		9S	
Loose Pulley on Countershaft, see Countershaft Pulley, loose.....		5S5	
MATRIX HOLDER (for Sorts Matrices, 14 point and over).....	1..	14S	3.75
bushing (for Centering Pin).....	(1)..	14S1	.25
clamp (back).....	(1)..	14S2	.40
(left).....	(1)..	14S3	.40
(right).....	(1)..	14S4	.40
spring (3).....	(1)..	14S6	.05
screw (3).....	(1)..	14S7	.04
MATRIX HOLDER 14S (complete).....			3.75
MOLD-BLADE-CAM LEVER.....	1..	15S	11.50
bushing (2).....	(1)..	15S1	.18
pin (2).....	(1)..	15S2	.01
compound lever.....		15S3	2.00
" locking screw.....		15S4	.35
" collar.....		15S5	.08
" stud.....		15S6	.40
" nut.....		15S7	.07
roller.....	(1)..	15S8	.30
pin.....	(1)..	15S9	.15
MOLD-BLADE-CAM LEVER 15S (complete).....			14.40
Replaces 44E when the Display-type Attachment is applied.			



MOLD-BLADE-CAM-LEVER-COMPOUND-LEVER ABUTMENT		
(in Main Stand).....	16S	.75
nut.....	16S1	.06
washer.....	16S2	.05

MOLD-BLADE-CAM-LEVER-COMPOUND-LEVER ABUTMENT 16S (complete).....		.86
---------------------------------------------------------------------	--	-----

36E is drilled and faced for 16S when the Display-type Attachment is applied to machines 103 to 963 inclusive.

NORMAL WEDGE (produces type 19 1-4 to 36 points set-ways).....	1.. 47S	5.00
gage.....	47S1	.60
handle.....	47S2	.20
packing piece (on 47S produces type 2 1-4 to 19 points set-ways).....	2.. 47S3	1.50
packing piece pin.....	2.. 47S4	

NORMAL WEDGE 47S (complete).....		7.10
----------------------------------	--	------

NOTE: NORMAL-WEDGE ADJUSTING NUT 23S and its LOCK NUT 23S1 will no longer be furnished. When one of these parts is required we will furnish instead a new NORMAL-WEDGE-LOCKING-PIN SHANK a14B7 which is now made longer to permit of the use of the regular ADJUSTING NUT 14B1 and its LOCK NUT 14B2 at all times.

NOZZLE (13 threads).....	24S	.75
(special 5-8", 13 threads).....	24S1	.75

Replace 14H or 14H1 when casting display type.

Nut, see Pulley Nut.....	30S	
--------------------------	-----	--

PISTON.....	25S	1.75
handle.....	1.. 25S1	.35
stem.....	1.. 25S2	
nut.....	1.. 25S3	

PISTON 25S (complete).....		2.10
----------------------------	--	------

Replaces 17H when casting display type.

PISTON-OPERATING-ROD CROSSHEAD.....	26S	3.50
stud (for depressing Nozzle)....	26S1	.20
nut.....	26S2	.05
lock nut.....	26S3	.05

PISTON-LEVER-OPERATING-ROD CROSSHEAD 26S (complete).....		3.80
-------------------------------------------------------------	--	------

Replaces 19H3 when the Display-type Attachment is applied.

PISTON-SPRING-ROD EYE.....	27S	.75
----------------------------	-----	-----

Replaces 20H2 when the Display-type Attachment is applied.

PULLEY (fast, on Cam Shaft).....1..	28S	6.00
pin (for Cone Pulley).....(1) ..	28S1	.05
PULLEY 28S (complete).....		6.00
Replaces 64E when the Display-type Attachment is applied.		
PULLEY (cone, on Cam Shaft).....	29S	18.00
<i>Pulley, cone, on Countershaft, see Countershaft Cone Pulley</i>	5S1	
PULLEY NUT (on Cam Shaft).....	30S	1.00
Replaces 10E4 when the Display-type Attachment is applied.		
PUMP-BODY LIFTING SPRING.....	31S	.20
plate (lower).....	31S1	.06
" (upper).....	31S2	.03
PUMP-BODY LIFTING SPRING 31S (complete)....		.29
Machines 1593 and following already have this.		
31S is made from 27H by cutting off two coils when the Display-type Attachment is applied.		
PUMP-BODY-SPRING-ROD-CROSSHEAD EYE.....	32S	.65
PUMP-BODY-SPRING-ROD STOP BLOCK.....1..	33S	1.00
spring post (in Stop Block).....(1) ..	33S1	.03
stud.....	33S2	.25
" washer.....	33S3	.10
PUMP-BODY-SPRING-ROD STOP BLOCK 33S (c'pl't).		1.35
38H is drilled and tapped for 33S2 when the Display-type Attachment is applied to machines 103 to 907 inclusive.		
PUMP-BODY-SPRING-ROD-STOP-BLOCK SPRING.....	34S	.08
PUMP-BODY-SPRING-ROD-STOP-BLOCK-SPRING POST (in 38H).....	35S	.10
38H is drilled and tapped for 35S when the Display-type Attachment is applied to machines 103 to 907 inclusive.		
<i>Pump-body-spring-rod-stop-block Spring Post, see Pump-body-spring-rod-stop-block Spring Post, in Stop Block</i>		
	33S1	
<i>Tightener Pulley, see Countershaft Tightener Pulley.....</i>	7S	
<i>Type Carrier, Universal, see Improvement No. 3.....</i>	b20B	



TYPE CHANNEL BLOCK (adjustable).....(1) ..	40S	2.50
clamp.....1..	40S1	12.00
" latch.....(1) ..	a40S2	1.00
" pin (3).....(1) ..	40S3	.03
" spring.....(1) ..	40S4	.05
" tongue.....1..	40S5	
" rivet (3).....(1) ..	40S6	.01
" stop plate.....(1) ..	40S7	.05
" screw (2).....(1) ..	40S8	.03
" type guide.....1..	40S9	

TYPE CHANNEL BLOCK 40S (complete)..... 12.00

Replaces 50F when casting display type. The Bolt 50F6 and WASHER 50F7 are used with 40S.

TYPE CHANNEL BLOCK (fixed).....1..	a41S	2.75
screw (rear).....	41S1	.06
latch.....(1) ..	a41S2	.15
" screw (2).....(1) ..	a41S3	.02

TYPE CHANNEL BLOCK 41S (complete)..... 2.81

Replaces 51F when casting display type. SCREW 51F5 (front) is used with 41S.

Wedge, see Justification Wedge.....	46S
Wedge, see Normal Wedge.....	47S

## Improvement No. 14

In effect on machines 1813, 1814, 1816, 1818, 1820, 1821, 1823 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To prevent the Stud from working loose.

To equip machines 103 to 1812 inclusive, 1815, 1817, 1819 and 1821 with this improvement requires that Trip-lever Fulcrum Stud a46F be ordered complete and that the hole in the old Main Galley Stand 31F be opened out to receive the Stud.

MAIN GALLEY STAND.....a31F	100.00
TRIP-LEVER FULCRUM STUD.....a46F	.60
nut.....a46F1	.05
washer.....a46F2	.05
TRIP-LEVER FULCRUM STUD a46F (complete)...	.70



## Improvement No. 15

In effect on machines 1843 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To reduce the strain on the fixed Air Pin and prevent its breakage.

To equip machines 103 to 1842 inclusive with this improvement requires the following parts. Either Air-pin Block may be furnished independent of the other, but requires the Air Pin and Spring when ordered for the first time.

AIR PIN (fixed, permanent stop for eighteen unit row)...	a2B	.20
spring.....	a2B1	.05
AIR PIN a2B (complete).....		.25
AIR-PIN BLOCK (front).....	b3B	60.00
AIR PIN (fixed, permanent stop for bottom row).....	a2C	.20
spring.....	a2C1	.05
AIR PIN a2C (complete).....		.25
AIR-PIN BLOCK (rear).....	a3C	50.00

## Improvement No. 16

In effect on machines 1843 and following:

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To prevent wear of the threads in the Main Stand 36E.

To equip machines 103 to 1842 inclusive with this improvement requires that the Stud and Nut be furnished together when ordered for the first time.

MOLD CLAMP stud.....	a48E1	.08
"    nut.....	a48E3	.05
MOLD CLAMP 48E (complete).....		.38
MOLD CLAMP stud.....	a49E1	.08
"    nut.....	a49E3	.05
MOLD CLAMP 49E (complete).....		.38

NOTE: When a MOLD CLAMP (complete) is ordered, the new style will always be furnished at the price here listed.



## Improvement No. 17

In effect on machines 1923 and following:

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: Increased strength.

To equip machines 103 to 1922 inclusive with this improvement requires that the Rod and Arm be furnished together when ordered for the first time

GALLEY TRIP ROD.....	a8D	.25
GALLEY TRIP ROD a8D (complete).....		.30
GALLEY-TRIP-ROD ARM.....	a9D	.75
GALLEY-TRIP-ROD ARM a9D (complete).....		1.25

Page "[Casting Machine] 101"  
was not present in the original  
document.



Page "[Casting Machine] 102"  
was not present in the original  
document.

In effect on machines 2013, 2015 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date _____

Object: To have threads on these Rods and Nuts the same pitch as on Studs a26E26 and Nuts a26E27 and thus prevent injury to threads if Nuts are interchanged.

To equip machines 321, 502, 520 to 2012 inclusive and 2014 with this improvement requires that each Rod and its two Nuts be furnished together when ordered for the first time.

Note: Improvement No. 20 may be applied to any other machine equipped with Double Spring Box a26E. See Improvement No. 1, page 77.

JAW-TONGS SPRING BOX spring rod (lower).....	b26E14	1.00
"    " nut.....	b26E15	.05
"    " lock nut.....	b26E16	.05
"    " (upper).....	b26E17	.75
"    " nut.....	b26E19	.05
"    " lock nut.....	b26E20	.05

JAW-TONGS SPRING BOX a26E (complete) includes BALL SOCKET a27E (complete) and BALL SOCKET a81E (complete) and cannot be furnished without them . . . . .

21.92



## Improvement No. 21

In effect on machines 2003 and following.

When applied to your machines fill in the following:

Applied to machines Nos.

Date

Object: To reduce the wear on the Springs.

Note: The old style Springs a84E can no longer be furnished. When ordering the new Springs b84E for the first time for machines 321 and 502 to 2002 inclusive, one each of the Plates a84E1 and a84E2 must be ordered with each Spring.

LOCKING-BAR-BELL-CRANK-LATCH SPRING (2).....	b84E	.08
plate (long) (2).....	a84E1	.03
"    (short) (2).....	a84E2	.03
LOCKING-BAR-BELL-CRANK-LATCH SPRING b84E		
(complete) (each).....		.14

# The Keyboard

THE KEYBOARD



THE KATHARON

THE KATHARON

## STYLE D KEYBOARD PRICES

### Complete List for Keyboards 3127 and Following

#### KA GROUP

Mechanism for transferring the motion of the Keys to the required Plungers; includes also the Base and Standard.

BASE.....	1KA1	49.00
cover.....1..	1KA2K	
" latch.....(1)...	1KA3	.18
" knob.....(1)...	1KA4	.34
" support (2).....(1)...	1KA5	.14
" rivet (4).....(1)...	1KA6	.01
cup (lower stop for 14KB3K).....	1KA7	.20
BASE complete with above parts.....	X1KA	51.20

NOTE: 1KA2K is assembled with 1KA3, 1KA4, 1KA5 and 1KA6 and cannot be furnished without these parts.

Price assembled..... 2.00

BASE STANDARD.....1..	2KA1K	
column.....1..	2KA2	
" screw (for raising X1KA).....1..	2KA3	
" hand wheel.....1..	2KA4	
" lock nut.....1..	2KA5	

BASE STANDARD complete with above parts..... X2KA 20.00

NOTE: 2KA1K is assembled with 2KA2, 2KA3, 2KA4 and 2KA5 and these parts cannot be furnished separately. Price assembled..... 20.00

COPY BRACKET.....	3KA1	1.00
extension.....	3KA2	.15
" clamp stud.....	3KA3	.20
" collar.....	3KA4	.25
" nut.....	3KA5	.15
stud.....	3KA6	.20

COPY BRACKET complete with above parts..... X3KA 1.95

COPY HOLDER (includes Rollers and Frame).....1..	4KA1K	
thumb screw.....(1)...	4KA2	.25

COPY HOLDER complete with above parts..... X4KA 3.25

NOTE: 4KA1K is assembled with 4KA2 and cannot be furnished without this part. Price assembled..... 3.25

[Style D Keyboard] 1



COPY HOOK (2).....	5KA1	.15
ring (2).....	5KA2	.35
COPY HOOK complete with above parts (each).....	X5KA	.50

COPY-HOOK-RING SCREW (right).....	15KA1	.08
-----------------------------------	-------	-----

Intermediate Bank, see Keybar.....	8KA1	
------------------------------------	------	--

KEYBANK (left).....	6KA1	7.70
bracket (left).....	6KA2	1.25
" screw (2).....	6KA3	.05
" (right).....	6KA4	1.25
" screw (2).....	6KA5	.05
button (designate by character) (137).....	6KA6	.05
" lever (regular) (lug to left) (71).....	6KA7	.04
" " (regular) (lug to right) (66).....	6KA8	.04
" " (justifying space) (2).....	1.. 6KA9K	
" " abutment rod (13).....	6KA10	.04
" " fulcrum rod (13).....	6KA11	.06
" " " sleeve (long).....	6KA12	.15
" " " (short).....	6KA13	.07
" " tie bar (lower).....	1.. 6KA14	
" " " rivet (4).....	(1) 6KA15	.02
" " " (upper).....	2.. 6KA16K	
" " " finger plate.....	2.. 6KA17	
number (in 6KA1) (3).....	a6KA18	.05

KEYBANK (left) complete with above parts.....	X6KA	25.00
-----------------------------------------------	------	-------

NOTE: 6KA9K is assembled with 6KA14 and 6KA15 and cannot be furnished without these parts. Price assembled..... .40

NOTE: 6KA16K is assembled with 6KA17 and these parts cannot be furnished separately. Price assembled..... .20

KEYBANK (right).....	7KA1	7.70
bracket (left).....	7KA2	1.25
" screw (2).....	7KA3	.05
" (right).....	7KA4	1.25
" screw (2).....	7KA5	.05
button (designate by character) (137).....	7KA6	.05
" lever (regular) (lug to left) (71).....	7KA7	.04
" " (regular) (lug to right) (66).....	7KA8	.04
" " (justifying space) (2).....	1.. 7KA9K	
" " abutment rod (13).....	7KA10	.04
" " fulcrum rod (13).....	7KA11	.06
" " " sleeve (long).....	7KA12	.15
" " " (short).....	7KA13	.07
" " tie bar (lower).....	1.. 7KA14	
" " " rivet (4).....	(1) 7KA15	.02
" " " (upper).....	2.. 7KA16K	
" " " finger plate.....	2.. 7KA17	
number (in 7KA1) (3).....	a7KA18	.05

KEYBANK (right) complete with above parts.....	X7KA	25.00
------------------------------------------------	------	-------

NOTE: 7KA9K is assembled with 7KA14 and 7KA15 and cannot be furnished without these parts. Price assembled..... .40

NOTE: 7KA16K is assembled with 7KA17 and these parts cannot be furnished separately. Price assembled.

.20

KEYBAR (left bank) (139).....	1..	8KA1	
frame (left bar).....	1..	8KA2K	
"    (right bar).....	1..	8KA3	
"    connecting bar (front).....	1..	8KA4	
"    "    "    screw (end) (2)....	(1) ..	8KA5	.06
"    "    "    "    (top) (2)....	(1) ..	8KA6	.06
"    "    plate (rear).....	1..	8KA7	
"    "    "    screw (2).....	(1) ..	8KA8	.06
guide (front) .....	(1) ..	8KA9	1.00
"    screw (2) .....	(1) ..	8KA10	.06
"    (rear) .....	(1) ..	8KA11	.80
"    screw (2) .....	(1) ..	8KA12	.06
stop bar.....	1..	8KA13	
"    "    screw (2) .....	(1) ..	8KA14	.07
"    "    nut (2).....	(1) ..	8KA15	.05
number (in 8KA4) (3).....	(1) ..	8KA16	.05
KEYBAR complete with above parts.....		X8KA	20.00
NOTE: 8KA2K is assembled with 8KA1 and 8KA3 to 8KA16 inclusive and cannot be furnished without these parts. Price assembled.....			
			20.00

**For Keybar Banks having the Frame in one piece order:**

KEYBAR (left bank) (139).....	1..	8KA1	
frame .....	1..	a8KA2K	
"    pin.....	(1) ..	a8KA3	.05
guide (front).....	1..	a8KA9	
"    screw (2).....	(1) ..	a8KA10	.06
"    (rear).....	1..	a8KA11	
"    screw (3).....	(1) ..	a8KA12	.05
"    separator (for 8KA1) (20).....	1..	a8KA4	
"    "    "    clamp (20).....	1..	a8KA5	
"    "    "    rivet (in a8KA9)			
"    "    "    "    (long) (10) ...	1..	a8KA6	
"    "    "    "    "    (rivet (in a8KA11)			
"    "    "    "    "    (short) (10) ...	1..	a8KA7	
stop bar.....	1..	8KA13	
"    "    screw (2).....	(1) ..	a8KA14	.06
number (in a8KA2K) (3).....	(1) ..	8KA16	.05
KEYBAR complete with above parts.....		X8KA	20.00
NOTE: a8KA2K is assembled with 8KA1, a8KA3, a8KA4, a8KA5, a8KA6, a8KA7, a8KA9, a8KA10, a8KA11, a8KA12, 8KA13, a8KA14 and 8KA16 and cannot be furnished without these parts. Price assembled.....			
			20.00

Note: When Keybar Banks having one piece Frames are used for the first time on Keyboards 3127 to 3441 inclusive, 3443, 3444, 3445, 3447 and 3449 it will be necessary to shorten the two lugs on the under side of Base 1KA1 to give clearance for the Banks. Directions for this alteration will be furnished when required.



KEYBAR (right bank) (139).....	1..	9KA1	
frame (left bar).....	1..	9KA2K	
" (right bar).....	1..	9KA3	
" connecting bar (front).....	1..	9KA4	
" " " screw (end) (2)....(1)...		9KA5	.06
" " " (top) (2)....(1)...		9KA6	.06
" " plate (rear).....	1..	9KA7	
" " screw (2).....	(1)...	9KA8	.06
guide (front).....	(1)...	9KA9	1.00
" screw (2).....	(1)...	9KA10	.06
" (rear).....	(1)...	9KA11	.80
" screw (2).....	(1)...	9KA12	.06
stop bar.....	1..	9KA13	
" " screw (2).....	(1)...	9KA14	.07
" " nut (2).....	(1)...	9KA15	.05
number (in 9KA4) (3).....	(1)...	9KA16	.05
KEYBAR complete with above parts.....		X9KA	20.00
NOTE: 9KA2K is assembled with 9KA1 and 9KA3 to 9KA16 inclusive and cannot be furnished without these parts. Price assembled.....			

20.00

KEYBAR (right bank) (139).....	1..	9KA1	
frame.....	1..	a9KA2K	
" pin.....	(1)...	a9KA3	.05
guide (front).....	1..	a9KA9	
" screw (2).....	(1)...	a9KA10	.06
" (rear).....	1..	a9KA11	
" screw (3).....	(1)...	a9KA12	.05
" separator (for 9KA1) (20).....	1..	a9KA4	
" " clamp (20).....	1..	a9KA5	
" " " rivet (in a9KA9) (long) (10).....	1..	a9KA6	
" " " rivet (in a9KA11) (short) (10).....	1..	a9KA7	
stop bar.....	1..	9KA13	
" " screw (2).....	(1)...	a9KA14	.06
number (in a9KA2K).....	(1)...	9KA16	.05
KEYBAR complete with above parts.....		X9KA	20.00

NOTE: a9KA2K is assembled with 9KA1, a9KA3, a9KA4, a9KA5, a9KA6, a9KA7, a9KA9, a9KA10, a9KA11, a9KA12, a9KA13, a9KA14 and 9KA16 and cannot be furnished without these parts. Price assembled.....

20.00

Note: When Keybar Banks having one piece Frames are used for the first time on Keyboards 3127 to 3441 inclusive, 3443, 3444, 3445, 3447, and 3449 it will be necessary to shorten the two lugs on the under side of Base 1KA1 to give clearance for the Banks. Directions for this alteration will be furnished when required.

Key Button, see Keybank Button..... 6KA6  
Key Lever, see Keybank-button Lever..... 6KA7

NAME PLATE (large).....	10KA1	.50
screw (4).....	10KA2	.03
(small) (Trade Mark).....	10KA3	.25
screw (4).....	10KA4	.03
NAME PLATE complete with above parts.....	X10KA	.99

Plunger Bar, see Valve Bar..... 13KA1

ROCK SHAFT (33).....	1..	11KA1K	
post (long) (6 in each Shaft) (198).....	1..	11KA2	
(short) (2 " " " " ) (66).....	1..	11KA3	
rod (long) (2 to " " " " ) (66).....	1..	11KA4	
" (short) (1 " " " " ) (33).....	1..	11KA5	

ROCK SHAFT complete with above parts..... X11KA 49.50

NOTE: Each ROCK SHAFT 11KA1K is assembled with six 11KA2, two 11KA3, two 11KA4 and one 11KA5 and these parts cannot be furnished separately. Price assembled, each..... 1.50

ROCK-SHAFT BRACKET (left).....	12KA1	4.00
(right).....	12KA2	4.00
connecting bar (front).....	12KA3	2.75
" " " " guide (for X13KA) (2).....	12KA4	.25
" " " " screw (4).....	12KA5	.05
" " " " screw (front) (2).....	12KA6	.05
" " " " (side) (2).....	12KA7	.05
" " " " (rear).....	12KA8	2.75
" " " " guide (for X13KA) (2).....	12KA9	.25
" " " " screw (4).....	12KA10	.05
" " " " screw (large) (2).....	12KA11	.07
" " " " (small) (2).....	12KA12	.05
" " " " tie bar.....	12KA13	3.50
" " " " screw (2).....	12KA14	.06
screw (8).....	12KA15	.06
stop bar (2).....	12KA16	.25

ROCK-SHAFT BRACKET complete with above parts .. X12KA

NOTE: X12KA is assembled with X11KA and cannot be furnished without these parts. Price assembled.... 69.44

VALVE BAR (C).....	13KA1	.25
(M).....	13KA2	.25
(L).....	13KA3	.25
(J).....	13KA4	.25
(G).....	13KA5	.25
(D).....	13KA6	.25
(N).....	13KA7	.25
(F).....	13KA8	.25
(O).....	13KA9	.25
(H).....	13KA10	.25
(I).....	13KA11	.25
(K).....	13KA12	.25
(E).....	13KA13	.25
(17).....	13KA14	.25
(S).....	13KA15	.25
(A).....	13KA16	.25



# VALVE BAR—Continued

(JD).....	1..	13KA17K	
plate.....	(1)...	13KA18	.05
" rivet (2).....	(1)...	13KA19	.02
(R).....	2..	13KA20K	
plate.....	(2)...	13KA21	.05
" rivet (2).....	(2)...	13KA22	.02
(B).....		13KA23	.25
(8).....		13KA24	.25
(6).....		13KA25	.25
(3).....		13KA26	.25
(12).....		13KA27	.25
(1).....		13KA28	.25
(9).....		13KA29	.25
(16).....		13KA30	.25
(7).....		13KA31	.25
(14).....		13KA32	.25
(2).....		13KA33	.25
(10).....		13KA34	.25
(13).....		13KA35	.25
(5).....		13KA36	.25
(15).....		13KA37	.25
(4).....		13KA38	.25
(11).....		13KA39	.25

VALVE BAR complete with above parts..... X13KA 8.75

NOTE: 13KA17K is assembled with 13KA18 and 13KA19 and cannot be furnished without these parts.  
Price assembled..... .25

NOTE: 13KA20K is assembled with 13KA21 and 13KA22 and cannot be furnished without these parts.  
Price assembled..... .25

NOTE: The VALVE BARS are listed above in the order in which they are arranged on the Keyboard, reading from left to right.

VALVE RETURNING ROCK SHAFT.....	1..	14KA1K	
fulcrum screw (2).....		14KA2	.05
" " nut (2).....		14KA3	.05
finger (2).....	(1)...	14KA4	.10
operating arm.....	(1)...	14KA5	.15
" " rod.....		14KA6	.25
" " head.....		14KA7	.15
" " nut.....		14KA8	.04
" " spring....		14KA9	.06
" " washer...		14KA10	.03

VALVE RETURNING ROCK SHAFT complete with above parts..... X14KA 2.23

NOTE: 14KA1K is assembled with 14KA4 and 14KA5 and cannot be furnished without these parts. Price assembled..... 1.50

Copy-hook-ring Screw (right), follows X5KA..... 15KA1

## KB GROUP

Mechanism for counting and registering ems and units, justifying spaces, and lines set; for indicating the proper justification and for driving and reversing these mechanisms.

BELL.....	1KB1	1.00
bracket.....1..	1KB2K	
" clamp (for 23KB1).....	1KB3	.06
" screw.....	1KB4	.03
" piston.....	1KB5	.25
" plug (head for cylinder).....	1KB6	.25
" screw (long).....	1KB7	.06
" (short).....	1KB8	.05
" spring post (for 2KB12).....(1)..	1KB9	.04
" stud (for 1KB1).....(1)..	1KB10	.15
" nut.....(1)..	1KB11	.04
screw.....	1KB12	.05

BELL complete with above parts.....X1KB 5.75

NOTE: 1KB2K is assembled with 1KB9, 1KB10 and 1KB11 and cannot be furnished without these parts.

Price assembled.....4.00

BELL HAMMER.....1..	2KB1K	
head.....1..	2KB2	
lever.....2..	2KB3K	
" fulcrum stud.....	2KB4	.12
" nut.....	2KB5	.04
" piston link.....	2KB6	.15
" " stud.....(2)..	a2KB7	.06
" " " cotter.....(2)..	a2KB8	.00
" " " washer.....(2)..	a2KB9	.03
" stud (for engaging 23KB2).....(2)..	2KB10	.08
" nut.....(2)..	2KB11	.04
spring.....	2KB12	.05
" post.....(1)..	2KB13	.04
stud.....	2KB14	.10
" nut.....	2KB15	.04

BELL HAMMER complete with above parts.....X2KB 2.60

NOTE: 2KB1K is assembled with 2KB2 and 2KB13 and cannot be furnished without these parts. Price assembled.....

.35

NOTE: 2KB3K is assembled with a2KB7, a2KB8, a2KB9, 2KB10 and 2KB11 and cannot be furnished without these parts. Price assembled.....

1.75

BELL TRIP LEVER.....	3KB1	.25
spring.....	3KB2	.05
stud.....	3KB3	.04

BELL TRIP LEVER complete with above parts.....X3KB 3.4

[Style D Keyboard] 7



Counter, see Line Counter.....	23KB1	
EM RACK.....	1..	4KB1K
bell trip.....	(1) ..	4KB2 .03
pointer.....	(1) ..	4KB3 .15
EM RACK complete with above parts.....	X4KB	2.00
NOTE: 4KB1K is assembled with 4KB2 and 4KB3 and cannot be furnished without these parts. Price assembled.....		
		2.00
EM-RACK SLIDE.....	1..	5KB1K
head.....	(1) ..	5KB2 1.00
screw (2).....	(1) ..	5KB3 .05
screw (2).....		5KB4 .07
spring hook (for 26KB4).....	(1) ..	5KB5 .10
post (for 7KB3).....	(1) ..	5KB6 .04
EM-RACK SLIDE complete with above parts.....	X5KB	7.39
NOTE: 5KB1K is assembled with 5KB2, 5KB3, 5KB5 and 5KB6 and cannot be furnished without these parts. Price assembled.....		
		7.25
EM-RACK STOP (left handle).....	6KB1	.75
(right handle).....	6KB2	1.00
pointer.....	1..	6KB3K
guide pin.....	1..	6KB4
spring.....		6KB5 .05
stud.....		6KB6 .07
EM-RACK STOP complete with above parts.....	X6KB	2.42
NOTE: 6KB3K is assembled with 6KB4 and these parts cannot be furnished separately. Price assembled.....		
		.55
EM-RACK-STOP RACK.....	7KB1	1.00
hook.....	7KB2	.18
spring.....	7KB3	.09
EM-RACK-STOP RACK complete with above parts.....	X7KB	1.27
EM-RACK-STOP-RACK ADJUSTING SCREW.....	1..	a8KB1K
head.....	1..	a8KB2
pin.....	1..	8KB3
EM-RACK-STOP-RACK ADJUSTING SCREW complete with above parts.....	X8KB	.95
NOTE: a8KB1K is assembled with a8KB2 and 8KB3 and these parts cannot be furnished separately. Price assembled.....		
		.95
EM SCALE.....	1..	9KB1K
holder.....	1..	9KB2
screw (2).....		9KB3 .05
washer (2).....		9KB4 .03
EM SCALE complete with above parts.....	X9KB	2.66
NOTE: 9KB1K is assembled with 9KB2 and these parts cannot be furnished separately. Price assembled.....		
		2.50
JUSTIFYING SCALE (designate by set).....	10KB1	1.50

[Style D Keyboard] 8

<i>Justifying-scale Driving Cylinder, see Unit-wheel-standard Cap</i> .....			a46KB5	
JUSTIFYING-SCALE DRIVING RACK.....	11KB1			.90
JUSTIFYING-SCALE GEAR SEGMENT.....	12KB1			2.35
stud.....	12KB2			.15
JUSTIFYING-SCALE GEAR SEGMENT complete with above parts.....	X12KB			2.50
JUSTIFYING-SCALE PINION.....	1..	13KB1K		
pin (3).....	(1) ..	13KB2		.04
spring post.....	(1) ..	13KB3		.03
stud.....		13KB4		.25
JUSTIFYING-SCALE PINION complete with above parts.....	X13KB			2.00
NOTE: 13KB1K is assembled with 13KB2 and 13KB3 and cannot be furnished without these parts. Price assembled.....				1.75
JUSTIFYING-SCALE POINTER.....	14KB1			.35
bracket.....	14KB2			.15
rack.....	1..	14KB3K		
" nut (for 14KB2).....		14KB4		.04
" pin (trip for 31KC11).....	(1) ..	14KB5		.01
stud.....		14KB6		.14
" nut.....		14KB7		.04
" washer.....		14KB8		.03
JUSTIFYING-SCALE POINTER complete with above parts.....	X14KB			3.25
NOTE: 14KB3K is assembled with 14KB5 and cannot be furnished without this part. Price assembled.....				2.50
JUSTIFYING-SCALE-POINTER DETENT PAWL.....	1..	15KB1K		
pin (for tripping Pawl) ..	(1) ..	15KB2		.03
spring.....		15KB3		.05
" post (in Pawl).....	(1) ..	15KB4		.04
JUSTIFYING-SCALE-POINTER DETENT PAWL complete with above parts.....	X15KB			.55
NOTE: 15KB1K is assembled with 15KB2 and 15KB4 and cannot be furnished without these parts. Price assembled.....				.50
<i>Justifying-scale-pointer-detent-pawl Fulcrum Stud, see Unit-wheel-standard-cap Stud</i> .....			46KB12	
JUSTIFYING-SCALE-POINTER LIFTING PAWL.....	1..	16KB1K		
pin (for tripping Pawl) ..	(1) ..	16KB2		.03
spring.....		16KB3		.05
" post (in Pawl).....	(1) ..	16KB4		.04
JUSTIFYING-SCALE-POINTER LIFTING PAWL complete with above parts.....	X16KB			.55
NOTE: 16KB1K is assembled with 16KB2 and 16KB4 and cannot be furnished without these parts. Price assembled.....				.50



*Justifying-scale-pointer-lifting-pawl Stud, see Justifying-scale-pointer-operating-lever Stud.....* 17KB5

JUSTIFYING-SCALE-POINTER OPERATING LEVER.....1..	17KB1K	
fulcrum stud.....	17KB2	.15
"    "    nut.....	17KB3	.04
piston link.....	17KB4	.15
stud (for 16KB1K)..(1)...	17KB5	.04
"    (for 17KB4)...(1)...	a17KB6	.06
"    cotter.....(1)...	a17KB7	.00
"    washer.....(1)...	a17KB8	.03

JUSTIFYING-SCALE-POINTER OPERATING LEVER complete with above parts.....X17KB 1.59

NOTE: 17KB1K is assembled with 17KB5, a17KB6, a17KB7 and a17KB8 and cannot be furnished without these parts. Price assembled..... 1.25

JUSTIFYING-SCALE-POINTER-PAWL-SPRING Post (in a46KB1K) (for 15KB3).....	18KB1	.10
nut.....	18KB2	.04
plate (for 16KB3).....	18KB3	.10

JUSTIFYING-SCALE-POINTER-PAWL-SPRING Post complete with above parts.....X18KB .24

JUSTIFYING-SCALE-POINTER-RACK GUIDE PLATE.....	19KB1	.60
screw (4)...	19KB2	.04

JUSTIFYING-SCALE-POINTER-RACK GUIDE PLATE complete with above parts.....X19KB .76

JUSTIFYING-SCALE SPINDLE.....1..	20KB1K	
head.....1..	20KB2	

JUSTIFYING-SCALE SPINDLE complete with above parts.....X20KB .30

NOTE: 20KB1K is assembled with 20KB2 and these parts cannot be furnished separately. Price assembled. .30

JUSTIFYING-SCALE SPRING.....	21KB1	.10
------------------------------	-------	-----

JUSTIFYING-SCALE-SPRING TAKE UP.....	22KB1	.20
lock nut.....	22KB2	.04

JUSTIFYING-SCALE-SPRING TAKE UP complete with above parts.....X22KB .24

LINE COUNTER.....	23KB1	2.25
split collar (on Shaft).....	23KB2	.35
"    "    clamp screw.....	23KB3	.03

LINE COUNTER complete with above parts.....X23KB 2.63

*Pipe, nicked, supply for operating Justifying Scale, second section, see Unit-wheel-standard-cap-head Pipe..* 46KB8

*Pipe, nicked, to Unit-wheel Driving Cylinder, second section, see Unit-wheel-driving-cylinder-ring Pipe.....* 36KB4

RESTORING ROCKER ARM.....	1..	24KB1K	
fork.....		24KB2	.20
link (for 24KB4K).....		24KB3	.15
" lever (for raising a38KB1K) 2..		24KB4K	
" " fulcrum stud.....		24KB5	.15
" " " nut.....		24KB6	.04
" " stud (for 24KB3).....	(2) ..	a24KB7	.06
" " " cotter.....	(2) ..	a24KB8	.00
" " " washer.....	(2) ..	a24KB9	.03
piston link.....		24KB10	.15
shaft.....		24KB11	.10
" set screw.....		24KB12	.02
stud (for 24KB2).....	(1) ..	a24KB13	.06
" cotter.....	(1) ..	a24KB14	.00
" washer.....	(1) ..	a24KB15	.03
" (for 24KB3).....	(1) ..	a24KB16	.06
" cotter.....	(1) ..	a24KB17	.00
" washer.....	(1) ..	a24KB18	.03
" (for 24KB10).....	(1) ..	a24KB19	.06
" cotter.....	(1) ..	a24KB20	.00
" washer.....	(1) ..	a24KB21	.03

RESTORING ROCKER ARM complete with above parts. X24KB 4.81

NOTE: 24KB1K is assembled with a24KB13, a24KB14, a24KB15, a24KB16, a24KB17, a24KB18, a24KB19, a24KB20 and a24KB21 and cannot be furnished without these parts. Price assembled..... 2.50

NOTE: 24KB4K is assembled with a24KB7, a24KB8 and a24KB9 and cannot be furnished without these parts. Price assembled..... 1.50

UNIT INDICATOR.....	1..	25KB1K	
bracket.....	(1) ..	25KB2	.20
screw.....		25KB3	.04
rivet (2).....	(1) ..	25KB4	.02

UNIT INDICATOR complete with above parts..... X25KB .49

NOTE: 25KB1K is assembled with 25KB2 and 25KB4 and cannot be furnished without these parts. Price assembled..... .45

UNIT RACK.....	1..	b26KB1K	
link.....	(1) ..	26KB2	.10
" stud.....	(1) ..	26KB3	.05
spring.....		26KB4	.08

UNIT RACK complete with above parts..... Xb26KB 1.48

NOTE: b26KB1K is assembled with 26KB2 and 26KB3 and cannot be furnished without these parts. Price assembled..... 1.40

Unit Rack b26KB1K is standard on Keyboards 3601 and following. When ordered for the first time for Keyboards prior to 3601 all the parts listed in Improvement No. 1 must be furnished. (See Improvement No. 1 for Special Price.)

Parts 26KB2, 26KB3 and 26KB4 are standard on all Keyboards.



UNIT-RACK ABUTMENT.....1..	27KB1K	
brace.....2..	27KB2K	
" spring.....	27KB3	.05
" post.....(2)...	27KB4	.04
bracket.....3..	a27KB5K	
" spring post (2)....(3)...	27KB6	.04
" stud (3).....	27KB7	.05
" washer.....	27KB8	.03
spring.....	27KB9	.05
" post.....(1)...	27KB10	.04

UNIT-RACK ABUTMENT complete with above parts.. Xa27KB 3.58

NOTE: 27KB1K is assembled with 27KB10 and cannot be furnished without this part. Price assembled.. 1.50

NOTE: 27KB2K is assembled with 27KB4 and cannot be furnished without this part. Price assembled.. .80

NOTE: a27KB5K is assembled with 27KB6 and cannot be furnished without this part. Price assembled.. 1.00

On Keyboards 3127 to 3269 inclusive (which have not already been equipped with Improvement No. 1) when ordering Unit-rack-abutment Bracket a27KB5K, the holes for the Studs 27KB7 both in the Unit-wheel Standard and in the Bracket must be elongated to permit of proper adjustment. Directions for this alteration will be furnished when required.

UNIT-RACK-ABUTMENT ADJUSTING STUD (in a46KB1K)..	28KB1	.10
nut.....	28KB2	.04

UNIT-RACK-ABUTMENT ADJUSTING STUD complete with above parts.....X28KB .1

UNIT-RACK SLIDE.....1..	a29KB1K	
eccentric bushing.....	29KB2	.30
shoe (for 38KB6).....(1)...	29KB3	.20
" rivet (2).....(1)...	29KB4	.02
stud (for a38KB12).....	a29KB5	.10
" nut.....	a29KB6	.04

UNIT-RACK SLIDE complete with above parts..... Xa29KB 3.94

NOTE: a29KB1K is assembled with 29KB3 and 29KB4 and cannot be furnished without these parts. Price assembled..... 3.50

For Keyboards 3127 to 3600 inclusive order: Improvement No. 1

UNIT-RACK SLIDE stud (for 38KB12).....	29KB5	.10
" nut.....	29KB6	.04

Note: Unit-rack Slide a29KB1K is standard on Keyboards 3601 and following. When ordered for the first time for Keyboards 3127 to 3600 inclusive all the parts listed in Improvement No. 1 must be furnished. (See Improvement No. 1 for Special Price.)

Parts 29KB2, 29KB3 and 29KB4 are standard on all Keyboards.

UNIT-RACK-SLIDE ABUTMENT.....	30KB1	.20
adjusting screw (2).....	30KB2	.06
stud.....	30KB3	.05

UNIT-RACK-SLIDE ABUTMENT complete with above parts.....X30KB .37

*Unit-rack-slide Operating Lever, see Tension-arm-connecting-rod Lever.*..... 39KC1K  
*Unit-rack-slide Raising Lever, see Unit-wheel-pawl Operating Lever.*..... a38KB12

UNIT-RACK STOP (lug on top) (1st, 3d, 5th, 7th, 9th, 11th, 13th, 15th, 17th) (9)..... 31KB1 .65  
 (lug on bottom) (2nd, 4th, 6th, 8th, 10th, 12th, 14th, 16th, 18th) (9)..... 31KB2 .65  
 bracket..... 1.. 31KB3K  
     " guide (right)..... (1)..... 31KB4 .45  
     " " (left)..... (1)..... 31KB5 .45  
     " " rivet (4)..... (1)..... 31KB6 .01  
     " screw (4)..... (1)..... 31KB7 .06  
 fulcrum rod..... (1)..... 31KB8 .15  
     " " cotter (2)..... (1)..... 31KB9 .00  
 liner (.01" thick) (17)..... (1)..... 31KB10 .02  
     " rod (2)..... (1)..... 31KB11 .10  
     " " cotter (4)..... (1)..... 31KB12 .00  
     " separator (18)..... (1)..... 31KB13 .04  
 spring (4)..... (1)..... 31KB14 .06  
     " bail (2)..... (1)..... 31KB15 .15  
     " pin (2)..... (1)..... 31KB16 .04  
     " rod..... (1)..... 31KB17 .06

UNIT-RACK STOP complete with above parts..... X31KB 17.45

NOTE: 31KB3K is assembled with 31KB4, 31KB5, 31KB6, 31KB16 and 31KB17 and cannot be furnished without these parts. Price assembled..... 5.51

UNIT-RACK STOPS begin numbering at the left; that is, the four-unit STOP is No. 1, the five-unit STOP is No. 2, etc.

UNIT-RACK-STOP BAR (plain) (11)..... 1.. 32KB1K  
 (with Block, Spring Plate and Rivets) (2)..... 1.. 32KB2  
 case..... 1.. 32KB3  
     " cap..... (1)..... 32KB4 .25  
     " screw (2)..... (1)..... 32KB5 .03  
     " dummy plate (5)..... (1)..... 32KB6 .06  
     " separator (17)..... (1)..... 32KB7 .05  
     " " rod (lower)..... (1)..... 32KB8 .05  
     " " " collar (2)..... (1)..... 32KB9 .04  
     " " " (upper)..... (1)..... 32KB10 .05  
     " " washer (26)..... (1)..... 32KB11 .03  
     " shoe (lower)..... (1)..... 32KB12 .20  
     " " (upper)..... (1)..... 32KB13 .30  
     " " screw (4)..... (1)..... 32KB14 .03  
     " spring post (for 32KB16) (2)..... (1)..... 32KB15 .03  
     " spring (for 9 and 10 unit Bars) (2)..... (1)..... 32KB16 .06

UNIT-RACK-STOP BAR complete with above parts.... X32KB 15.00

NOTE: 32KB1K is assembled with 32KB2, 32KB3, 32KB4, 32KB5, 32KB6, 32KB7, 32KB8, 32KB9, 32KB10, 32KB11, 32KB12, 32KB13, 32KB14, 32KB15 and 32KB16 and cannot be furnished without these parts. Price assembled ..... 15.00

*Unit-rack-stop-bar-case Plunger, see Punch-bar-lever-bracket Plunger.*..... 34KC8  
 [Style D Keyboard] 13



UNIT-RACK-STOP GUIDE.....	33KB1	1.20
screw (2).....	33KB2	.05
" washer (2).....	33KB3	.03
UNIT-RACK-STOP GUIDE complete with above parts. . .	X33KB	1.36

UNIT-RACK-STOP-GUIDE ADJUSTING SCREW.....	34KB1	.07
bracket (also guide for 38KB6).....	34KB2	1.10
" screw (2).....	34KB3	.06
lock nut.....	34KB4	.05

UNIT-RACK-STOP-GUIDE ADJUSTING SCREW complete with above parts.....	X34KB	1.34
---------------------------------------------------------------------	-------	------

Unit-rack-stop Operating Lever, see Punch-bar Lever.... 34KC1

UNIT WHEEL.....	1..a35KB1K	
shaft.....	1..a35KB2	
rivet (6).....	(1).. 35KB3	.02

UNIT WHEEL complete with above parts.....	Xb35KB	5.00
-------------------------------------------	--------	------

NOTE: a35KB1K is assembled with a35KB2 and 35KB3 and cannot be furnished without these parts.  
Price assembled..... 5.00

Unit Wheel Xb35KB is standard on Keyboards 3601 and following. When ordered for the first time for Keyboards prior to 3601 all the parts listed in Improvement No. 1 must be furnished. (See Improvement No. 1 for Special Price.)

Part 35KB3 is standard on all Keyboards.

UNIT-WHEEL DRIVING CYLINDER (2).....	36KB1	2.00
head (2).....	36KB2	1.25
ring (2).....	36KB3	.60
" pipe (2).....	36KB4	.35
" " union (male end) (2)....	36KB5	.05
" " nut (2).....	36KB6	.10

UNIT-WHEEL DRIVING CYLINDER complete with above parts.....	X36KB	8.70
------------------------------------------------------------	-------	------

UNIT-WHEEL DRIVING RACK.....	37KB1	3.00
piston (2).....	37KB2	.40
" packing (leather) (2).....	37KB3	.07
" stud (2).....	37KB4	.03
" washer (2).....	37KB5	.03
" screw (2).....	37KB6	.05
rider (stop for 11KB1).....	37KB7	.80

UNIT-WHEEL DRIVING RACK complete with above parts.....	X37KB	4.96
--------------------------------------------------------	-------	------

UNIT-WHEEL PAWL.....	1..a38KB1K	
bushing.....	1.. 38KB2	
" collar.....	1.. 38KB3	
connecting link (from a38KB12) (2).....	1.. 38KB4	
pin (2).....	(1).. 38KB5	.08
latch (lock for a29KB1K).....	1.. 38KB6	
" operating link (2).....	1.. 38KB7	
" " bushing (fulcrum).....	1.. 38KB8	

[Style D Keyboard] 14

# UNIT-WHEEL PAWL—Continued

latch operating link pin (Latch end)...	(1)...	38KB9	.04
" " " rivet (2).....	(1)...	38KB10	.02
" " " separator.....	1..	38KB11	
operating lever (also raises a29KB1K)....	1..	a38KB12	
oil pad.....	(1)...	a38KB13	.02

UNIT-WHEEL PAWL complete with above parts.... Xa38KB 5.75

NOTE: a38KB1K is assembled with 38KB2, 38KB3, 38KB4, 38KB5, 38KB6, 38KB7, 38KB8, 38KB9, 38KB10, 38KB11, a38KB12 and a38KB13, and cannot be furnished without these parts. Price assembled.... 5.75

We cannot furnish repair parts for the UNIT-WHEEL PAWL (except the PINS, RIVETS and OIL PAD). Instead we exchange repaired UNIT-WHEEL PAWLS for worn UNIT-WHEEL PAWLS. Price for exchange..... 2.50

NOTE: This exchange price does not apply to KEYBOARDS prior to 3601 unless they have been equipped with Improvement No. 1.

Unit-wheel Pawl a38KB1K is standard on Keyboards 3601 and following. When ordered for the first time for Keyboards prior to 3601 all the parts listed in Improvement No. 1 must be furnished. (See Improvement No. 1 for Special Price.)

Parts 38KB2 to 38KB11 inclusive are standard on all Keyboards.

Part a38KB13 is standard on Keyboards 3701 and following. This part may be applied to any Keyboard prior to 3701, without any alteration being required.

UNIT-WHEEL-PAWL ADJUSTING BAR..... 39KB1 .40  
nut (2)..... 39KB2 .04

UNIT-WHEEL-PAWL ADJUSTING BAR complete with above parts..... X39KB .48

UNIT-WHEEL-PAWL-LATCH SPRING..... 40KB1 .06

UNIT-WHEEL-PAWL SPRING..... a41KB1 .10  
hook..... a41KB2 .05  
plate..... a41KB3 .03

UNIT-WHEEL-PAWL SPRING complete with above parts..... X41KB .18

For Keyboards 3127 to 3821 inclusive the Unit-wheel-pawl Spring must be furnished complete (X41KB) when ordered for the first time.

UNIT-WHEEL-PAWL-SPRING POST (in a46KB1K)..... 42KB1 .15  
nut..... 42KB2 .04

UNIT-WHEEL-PAWL-SPRING POST complete with above parts..... X42KB .19

UNIT-WHEEL-PAWL STUD..... 43KB1 .10

Unit-wheel Reversing Cylinder, see Unit-wheel Driving Cylinder..... 36KB1



UNIT-WHEEL STANDARD.....	1..	a46KB1K	
cap (for 36KB1) (2).....	1..	46KB2	
" screw (3).....	(1)...	46KB3	.06
" stud (post for 22KB1).....		46KB4	.25
" (for a35KB2).....	1..	a46KB5	
" head (for a46KB5).....		46KB6	.50
" sleeve nut (2).....		46KB7	.07
" pipe.....		46KB8	.30
" " union (male end) (2)....		46KB9	.07
" " nut (2).....		46KB10	.07
" screw (4).....	(1)...	46KB11	.05
" stud (for 15KB1K).....	(1)...	46KB12	.04
oil pipe.....	(1)...	a46KB19	.05
screw (4).....		46KB13	.06
spring post (for 3KB2).....	(1)...	46KB14	.04
" (for 40KB1).....	(1)...	46KB15	.04
stud (for 29KB2).....	(1)...	46KB16	.10
" nut.....	(1)...	46KB17	.04
" washer.....	(1)...	46KB18	.03
UNIT-WHEEL STANDARD complete with above parts. Xa46KB	20.71		
NOTE: a46KB1K is assembled with 46KB2, 46KB3, a46KB5, 46KB11, 46KB12, 46KB14, 46KB15, 46KB16, 46KB17, 46KB18 and a46KB19, and cannot be furnished without these parts. Price assembled.....			
	19.00		

Unit-wheel Standard a46KB1K is standard on Keyboards 3267, 3268, 3270 and following (except the Oil Pipe a46KB19—see below). When ordered for the first time for Keyboards 3127 to 3266 inclusive and 3270 all the parts listed in Improvement No. 1 must be furnished.

Unit-wheel-standard Oil Pipe a46KB19 is for conveying oil to the Tension-arm-connecting-rod-lever Roller Bearing 39KC10. This Oil Pipe is standard on Keyboards 3701 and following. It may be applied to Keyboards prior to 3701 if the Unit-wheel Standard is drilled to receive it. Directions for this alteration will be furnished when required.

Unit-wheel-standard-cap Piston, see Justifying-scale Driving Rack..... 11KB1

## KC GROUP

Mechanism for driving the Punches through the paper, and for feeding and winding the paper.

Air Chamber, see Valve-bank Air Filter.....	41KC2K	
Exhaust Pipe, see Valve-bank-air-filter Vent Pipe.....	42KC1	
Hose (rubber, supply) (30" long) .....	1KC1	.50
coupling.....	1KC2	.35
valve (3-8").....	1KC3	.70
nozzle.....	a1KC4	.90
Hose complete with above parts.....	X1KC	2.45

PAPER-FEED-PAWL LEVER.....	1..	a2KC1K	
pin (operating 7KC1).....	(1) ..	2KC2	.04
stud (for 6KC1K).....	(1) ..	a2KC3	.06
" cotter.....	(1) ..	a2KC4	.00
" washer.....	(1) ..	a2KC5	.03
" (for 9KC2).....	(1) ..	a2KC6	.06
" cotter.....	(1) ..	a2KC7	.00
" washer.....	(1) ..	a2KC8	.03
" (for a21KC7).....	(1) ..	a2KC9	.06
" cotter.....	(1) ..	a2KC10	.00
" washer.....	(1) ..	a2KC11	.03

PAPER-FEED-PAWL LEVER complete with above parts. Xa2KC 1.25

NOTE: a2KC1K is assembled with 2KC2, a2KC3, a2KC4, a2KC5, a2KC6, a2KC7, a2KC8, a2KC9, a2KC10 and a2KC11 and cannot be furnished without these parts. Price assembled..... 1.25

PAPER-FEED-PAWL RING.....	1..	3KC1K	
adjusting screw (2).....		3KC2	.06
screw (3).....		3KC3	.06
stud (for 5KC1K).....	(1) ..	a3KC4	.06
" cotter.....	(1) ..	a3KC5	.00
" washer.....	(1) ..	a3KC6	.03
" (for 7KC1).....	(1) ..	a3KC7	.06
" cotter.....	(1) ..	a3KC8	.00
" washer.....	(1) ..	a3KC9	.03

PAPER-FEED-PAWL RING complete with above parts... X3KC 2.80

NOTE: 3KC1K is assembled with a3KC4, a3KC5, a3KC6, a3KC7, a3KC8 and a3KC9 and cannot be furnished without these parts. Price assembled..... 2.50

PAPER-FEED-PISTON LINK (2).....	4KC1	.15
lever.....	1.. 4KC2K	
" stud (for 4KC1) (2).....	(1).. a4KC3	.06
" " cotter (2).....	(1).. a4KC4	.00
" " washer (2).....	(1).. a4KC5	.03



PAPER-FEED-PISTON LINK— <i>Continued</i>			
lever stud (for 9KC2).....(1)...	a4KC6	.06	
"    "    cotter.....(1)...	a4KC7	.00	
"    "    washer.....(1)...	a4KC8	.03	
PAPER-FEED-PISTON LINK complete with above parts.....	X4KC	1.40	
NOTE: 4KC2K is assembled with a4KC3, a4KC4, a4KC5, a4KC6, a4KC7 and a4KC8 and cannot be furnished without these parts. Price assembled.....			
		1.10	
PAPER-FEED-RATCHET DETENT.....1...	5KC1K		
pin (for 8KC1K).....(1)...	5KC2	.02	
spring.....	5KC3	.05	
PAPER-FEED-RATCHET DETENT complete with above parts.....	X5KC	.40	
NOTE: 5KC1K is assembled with 5KC2 and cannot be furnished without this part. Price assembled.....			
		.35	
PAPER-FEED-RATCHET PAWL (driving).....1...	6KC1K		
pin (for 8KC1K).....(1)...	a6KC2	.02	
spring.....	6KC3	.05	
pin.....(1)...	6KC4	.03	
PAPER-FEED-RATCHET PAWL complete with above parts.....	Xa6KC	.40	
NOTE: 6KC1K is assembled with a6KC2 and 6KC4 and cannot be furnished without these parts. Price assembled.....			
		.35	
PAPER-FEED-RATCHET PAWL (stop).....	7KC1	.35	
spring.....	7KC2	.05	
PAPER-FEED-RATCHET PAWL complete with above parts.....	X7KC	.40	
PAPER FEED RELEASE PLATE.....1...	8KC1K		
link.....	b8KC2	.30	
spring.....	8KC4	.05	
stud (for b8KC2).....(1)...	b8KC5	.06	
"    cotter.....(1)...	a8KC6	.00	
"    washer.....(1)...	a8KC7	.03	
PAPER FEED RELEASE PLATE complete with above parts.....	Xa8KC	.85	
NOTE: 8KC1K is assembled with b8KC5, a8KC6 and a8KC7 and cannot be furnished without these parts. Price assembled.....			
		.50	
<i>Paper-feed-release-plate Catch, see Paper-feed-release-plate-link Bracket.....</i>			
	b25KC1K		
PAPER-FEED-RELEASE-PLATE-LINK BRACKET.....1...	b25KC1K		
screw (2).....	25KC2	.03	
pin.....(1)...	a25KC3	.15	
PAPER-FEED-RELEASE-PLATE-LINK BRACKET complete with above parts.....	Xa25KC	.41	
NOTE: b25KC1K is assembled with a25KC3 and cannot be furnished without this part. Price assembled..			
		.35	

PAPER FEED ROD.....	9KC1	.25	
" eye (2).....	9KC2	.30	
" lock nut (2).....	9KC3	.04	
" stop nut (2).....	9KC4	.06	
" lock nut (2).....	9KC5	.04	
" washer (fibre) (2).....	9KC6	.05	
PAPER FEED ROD complete with above parts.....	X9KC	1.23	
PAPER FEED VALVE.....	10KC1	.25	
" lever.....	10KC2K		
" pin (for 10KC1).....	(1) 10KC3	.06	
" roller.....	(1) 10KC4	.10	
" stud.....	(1) 10KC5	.08	
" nut.....	(1) 10KC6	.04	
PAPER FEED VALVE complete with above parts.....	X10KC	1.25	
NOTE: 10KC2K is assembled with 10KC3, 10KC4, 10KC5 and 10KC6 and cannot be furnished without these parts. Price assembled.....			1.00
PAPER-FEED-VALVE BRACKET.....	11KC1K		
" plug screw (brass) (2).....	(1) 11KC2	.02	
" screw (4).....	11KC3	.05	
" stud (for 4KC2K).....	(1) 11KC4	.07	
" nut.....	11KC5	.04	
" washer.....	11KC6	.03	
" (for 10KC2K).....	(1) 11KC7	.07	
PAPER-FEED-VALVE BRACKET complete with above parts.....	X11KC	1.52	
NOTE: 11KC1K is assembled with 11KC2, 11KC4 and 11KC7 and cannot be furnished without these parts. Price assembled.....			1.25
PAPER-FEED-VALVE CAM.....	12KC1	.60	
" adjusting stud (2).....	12KC2	.07	
" nut (2).....	12KC3	.04	
" screw.....	12KC4	.05	
" washer.....	12KC5	.03	
PAPER-FEED-VALVE CAM complete with above parts..	X12KC	2.90	
PAPER FEED WHEEL (left).....	1. a13KC1K		
" (right).....	1. a13KC2		
" dowel (2).....	(1) 13KC3	.03	
" pin (44).....	(1) a13KC4	.01	
" ratchet (driving).....	(1) 13KC5	.80	
" (stop).....	(1) 13KC6	.80	
" rivet (4).....	(1) 13KC7	.02	
" separating washer... (1).....	13KC8	.82	
" shaft.....	13KC9		
" knob (knurled).....	13KC10	.30	
" set screw.....	13KC11	.03	
PAPER FEED WHEEL complete with above parts... Xa13KC		13.93	
NOTE: a13KC1K is assembled with a13KC2, 13KC3, a13KC4, 13KC5, 13KC6, 13KC7, 13KC8 and 13KC9 and cannot be furnished without these parts. Price assembled.....			13.60



### Exchange of Paper Feed Wheels Xa13KC.

To replace a broken Paper-feed-wheel Shaft 13KC9 requires special tools (the distance between the wheels must be exact) and we do not, therefore, furnish these Shafts separately. Instead we exchange repaired Paper Feed Wheels Xa13KC for Paper Feed Wheels having a broken Shaft. We charge \$13.93 for the repaired Paper Feed Wheels Xa13KC and make a credit of \$11.93 upon the receipt in Philadelphia of the broken Shaft with all attached parts in good condition.

[Style D Keyboard] 19A

I2-II-I2

Insert facing page folioed  
[Style D Keyboard] 19

13-11-13

(2015 D. K. 100000) 10  
100000 D. K. 100000

100000 D. K. 100000

100000 D. K. 100000  
100000 D. K. 100000  
100000 D. K. 100000  
100000 D. K. 100000  
100000 D. K. 100000  
100000 D. K. 100000  
100000 D. K. 100000  
100000 D. K. 100000  
100000 D. K. 100000  
100000 D. K. 100000

100000 D. K. 100000



For Keyboards 3127 to 3216 inclusive order:

PAPER FEED WHEEL pin (44).....(1).. 13KC4 .01

PAPER FEED WHEEL complete with parts  
a13KC1K, 13KC10 and 13KC11.....X13KC 13.93

Note: The above is due to change in diameter of the Pins.

#### PAPER GUIDE

brake arm (right).....	1..	45KC1K	13.03
"    (left).....	1..	45KC2	.02
"    rod.....	1..	45KC3	.30
fulcrum pin (2).....	1..	45KC4	
"    "    plate (2).....	1..	45KC5	.23
"    "    rivet (4).....	1..	45KC6	.03
rod.....	1..	45KC7	.03
plate (right).....	1..	45KC8	
(left).....	1..	45KC9	
tension rod.....	(1)..	45KC10	.15
"    spring (2).....	(1)..	45KC11	.06
weight.....	1..	45KC12	

PAPER GUIDE complete with above parts.....X45KC 5.00

NOTE: 45KC1K is assembled with 45KC2, 45KC3, 45KC4, 45KC5, 45KC6, 45KC7, 45KC8, 45KC9, 45KC10, 45KC11 and 45KC12 and cannot be furnished without these parts. Price assembled..... 5.00

PAPER SHAFT (for supply roll)..... 14KC1 .20

#### PAPER SPOOL

flange (2).....	1..	15KC1K	
tube (inner).....	1..	15KC2	.23
(outter).....	1..	15KC3	

PAPER SPOOL complete with above parts.....X15KC 1.00

NOTE: 15KC1K is assembled with 15KC2 and 15KC3 and these parts cannot be furnished separately. Price assembled..... 1.00

PAPER-SPOOL SHAFT.....1.. 16KC1K  
head.....1.. 16KC2

PAPER-SPOOL SHAFT complete with above parts .... X16KC .50

NOTE: 16KC1K is assembled with 16KC2 and these parts cannot be furnished separately. Price assembled. .50

PAPER-SPOOL-SHAFT BEARING (left).....	17KC1	.20
nut.....	17KC2	.06
spring.....	17KC3	.05

PAPER-SPOOL-SHAFT BEARING complete with above parts.....X17KC .31

#### PAPER TOWER

cylinder.....	1..	18KC1K	1.33
"    die (for X32KC).....	1..	18KC2	
"    "    screw (4).....	(1)..	18KC3	.03
"    dowel (2).....	(1)..	18KC4	.07
"    head (2).....	1..	18KC5	

[Style D Keyboard] 20

# PAPER TOWER—Continued

cylinder head screw (6).....	(1) ..	18KC6	.02
"    screw (4).....	(1) ..	18KC7	.05
"    slide (2).....	1 ..	18KC8	
"    stop screw (2).....	(1) ..	a18KC38	.03
housing (left).....	1 ..	18KC9	
"    punch lock.....	2(1) ..	18KC10K	
"    "    knob.....	(1) ..	18KC11	.25
"    "    dowel.....	(1) ..	18KC12	.03
"    "    pin.....	(2)(1) ..	18KC13	.04
"    screw (2).....	1 ..	18KC14	.06
"    (right).....	1 ..	a18KC15	
"    paper wind shaft.....	3(1) ..	18KC16K	
"    "    "    nut.....	(1) ..	18KC17	.05
"    "    "    pin.....	(3)(1) ..	18KC18	.03
"    "    "    spring post.....	(1) ..	18KC19	.10
"    "    "    washer.....	(1) ..	18KC20	.05
"    screw (2).....	1 ..	18KC21	.06
"    spring post (for 5KC3, 6KC3, 7KC2, 23KC2, 24KC2) (2).....	(1) ..	a18KC22	.10
"    stop bracket (for a21KC7).....	(1) ..	a18KC23	.25
"    stud (for a23KC1K).....	(1) ..	b18KC24	.10
"    cotter.....	(1) ..	a18KC25	.00
"    washer.....	(1) ..	a18KC26	.03
punch guide.....	(1) ..	18KC29	2.75
"    "    index plate.....	(1) ..	18KC30	.25
"    "    "    screw (2).....	(1) ..	18KC31	.03
"    "    screw (left, long).....	(1) ..	18KC32	.04
"    "    "    (right, short).....	(1) ..	18KC33	.03
tension arm (for X33KC).....	(1) ..	18KC34	2.50
"    "    key (for 18KC36).....	(1) ..	18KC35	.03
"    "    lever (for 12KC1).....	(1) ..	18KC36	.40
"    "    "    clamp screw.....	(1) ..	18KC37	.05

PAPER TOWER complete with above parts.....X18KC

NOTE: X18KC is assembled with Xa2KC, X3KC, X5KC, Xa6KC, X7KC, Xa8KC, Xa13KC, X17KC, Xa21KC, X22KC, Xa23KC, Xa24KC, Xa25KC, X34KC and X35KC and cannot be furnished without these parts. Price assembled complete.....

74.01

NOTE: 18KC1K is the same as X18KC (see above) and must be assembled with the same parts except that 18KC1K does not include the four SCREWS 18KC14 and 18KC21. Price assembled.....

73.77

NOTE: 18KC10K is assembled with 18KC13 and cannot be furnished without this part. Price assembled...

.46

NOTE: 18KC16K is assembled with 18KC18 and cannot be furnished without this part. Price assembled...

1.03

Paper-tower-cylinder-slide Stop Screws a18KC38 are to prevent the Slides being opened far enough to strike the Paper Feed Wheels. These Stop Screws are standard on Keyboards 3832 and following. They may be applied to Keyboards prior to 3832 if the Cylinder 18KC1K is drilled and tapped to receive them and the Slides 18KC8 are shortened. Directions for these alterations will be furnished when required.



PAPER-TOWER COVER (rear).....	1..	19KC1K	
knob.....	(1)...	19KC2	.10
thumb screw (in 35KC7) (2)....		19KC3	.10
PAPER-TOWER COVER complete with above parts....	X19KC		1.05
NOTE: 19KC1K is assembled with 19KC2 and cannot be furnished without this part. Price assembled.....			
			.85
PAPER-TOWER COVER (front, large).....		20KC1	.20
(front, small).....		20KC2	.10
screw (5).....		20KC3	.04
PAPER-TOWER COVER complete with above parts....	X20KC		.50
PAPER WIND LEVER.....	1..	21KC1K	
stud (for b24KC1K).....	(1)...	a21KC2	.06
cotter.....	(1)...	a21KC3	.00
" washer.....	(1)...	a21KC4	.03
" (for a21KC7).....	(1)...	a21KC5	.06
" cotter.....	(1)...	a21KC6	.00
driving rod.....		a21KC7	.25
spring post (for a24KC4)....	(1)...	a21KC8	.04
PAPER WIND LEVER complete with above parts....	Xa21KC		1.10
NOTE: 21KC1K is assembled with a21KC2, a21KC3, a21KC4, a21KC5, a21KC6 and a21KC8 and cannot be furnished without these parts. Price assembled.....			
			.85
PAPER WIND RATCHET.....	1..	22KC1K	
spring.....		22KC2	.05
" post (in 22KC1K) ..	(1)...	22KC3	.04
PAPER WIND RATCHET complete with above parts ..	X22KC		1.05
NOTE: 22KC1K is assembled with 22KC3 and cannot be furnished without this part. Price assembled.....			
			1.00
PAPER-WIND-RATCHET DETENT.....	1..	a23KC1K	
spring.....		23KC2	.05
pin.....	(1)...	a23KC3	.02
PAPER-WIND-RATCHET DETENT complete with above parts.....	Xa23KC		.40
NOTE: a23KC1K is assembled with a23KC3 and cannot be furnished without this part. Price assembled..			
			.35
PAPER-WIND-RATCHET PAWL.....	1..	b24KC1K	
pin.....	(1)...	a24KC3	.02
spring (long).....		24KC2	.08
spring (short).....		a24KC4	.05
" post (for a24KC4)....	(1)...	a24KC5	.04
PAPER-WIND-RATCHET PAWL complete with above parts.....	Xa24KC		.48
NOTE: b24KC1K is assembled with a24KC3 and a24KC5 and cannot be furnished without these parts. Price assembled.....			
			.35
<i>Paper-feed-release-plate-link Bracket, follows Xa8KC....</i>			
<i>Pawl Catch, see Paper-feed-release-plate-link Bracket....</i>			
<i>Pawl Trip Plate, see Paper Feed Release Plate.....</i>			
		8KC1K	

PIPE (in 29KC1K; to 46KB6; first section).....	26KC1	.10
union (female end).....	26KC2	.05
PIPE complete with above parts.....	X26KC	.15
PIPE (in 29KC1K; to 36KB1 right; first section).....	27KC1	.20
(in 29KC1K; to 36KB1 left; first section).....	27KC2	.20
union (female end) (2).....	27KC3	.05
PIPE complete with above parts.....	X27KC	.50
Pipe, see Hose.....	1KC1	
Pipe, see Piston-block-base Pipe.....	30KC8	
Pipe, see Valve-bank-air-filter Vent Pipe.....	42KC1	
PISTON (regular) (9-16" diam.) (38).....	28KC1	.25
(for 24KB1K) (11-16" diam.).....	28KC2	.30
PISTON complete with above parts.....	X28KC	9.80
PISTON BLOCK.....	1.. 29KC1K	
plate (cover for Tension-arm Piston).....	2.. 29KC2K	
" pin (for 29KC10).....	29KC3	.04
" screw (2).....	29KC4	.05
plug screw (brass) (3).....	29KC7	.02
screw (8).....	29KC8	.07
space switch piston.....	29KC9	.30
" " spring.....	29KC10	.05
" " valve plunger.....	29KC11	.10
" " " bushing..... (1) ..	29KC12	.10
" " " link.....	29KC13	.10
spring post (for 36KC5).....	29KC14	.04
valve (for shifting the reverse).....	29KC15	.25
" bushing..... (1) ..	29KC16	.20
" handle.....	29KC17	.10
" pin.....	29KC18	.01
" spring.....	29KC19	.05
PISTON BLOCK complete with above parts.....	X29KC	22.22
NOTE: 29KC1K is assembled with 29KC12 and 29KC16 and cannot be furnished without these parts.		
Price assembled.....		20.00
NOTE: 29KC2K is assembled with 29KC3 and cannot be furnished without this part. Price assembled.....		
		.50
PISTON-BLOCK BASE.....	1.. 30KC1K	
bracket (left).....	(1) 30KC2	2.00
" (right).....	(1) 30KC3	2.00
" plate (for Pipes).....	1.. 30KC4	
" " screw (lower, long) (2).....	(1) 30KC5	.06
" " (rear, short) (2).....	(1) 30KC6	.06
" screw (4).....	(1) 30KC7	.07
pipe (from Plunger 11).....	(1) 30KC8	.36
" " 4).....	(1) 30KC9	.42
" " " 15).....	(1) 30KC10	.30
" " " 5).....	(1) 30KC11	.54
" " " 13).....	(1) 30KC12	.36
" " " 10).....	(1) 30KC13	.33
" " " 2).....	(1) 30KC14	.30
" " " 14).....	(1) 30KC15	.24

[Style D Keyboard] 23



# PISTON-BLOCK BASE—Continued

pipe (from Plunger 7).....	(1)...	30KC16	.42
" " " 16) (.0005 justifying).....	(1)...	30KC17	.17
" " " 9).....	(1)...	30KC18	.29
" " " 1).....	(1)...	30KC19	.30
" " " 12).....	(1)...	30KC20	.12
" " " 3).....	(1)...	30KC21	.20
" " " 6).....	(1)...	30KC22	.10
" " " 8).....	(1)...	30KC23	.21
" " " B).....	(1)...	30KC24	.27
" " " R).....	(1)...	30KC25	.30
" " " JD).....	(1)...	30KC26	.57
" " " A).....	(1)...	30KC27	.27
" " " S).....	(1)...	30KC28	.33
" " " 17) (.0075 justifying).....	(1)...	30KC29	.20
" " " E).....	(1)...	30KC30	.20
" " " K).....	(1)...	30KC31	.30
" " " I).....	(1)...	30KC32	.20
" " " H).....	(1)...	30KC33	.24
" " " O).....	(1)...	30KC34	.30
" " " F).....	(1)...	30KC35	.47
" " " N).....	(1)...	30KC36	.35
" " " D).....	(1)...	30KC37	.46
" " " G).....	(1)...	30KC38	.43
" " " J).....	(1)...	30KC39	.35
" " " L).....	(1)...	30KC40	.35
" " " M).....	(1)...	30KC41	.31
" " " C).....	(1)...	30KC42	.45
" (29KC11 to Space Switch).....	(1)...	30KC43	.35
" (30KC4 to Reversing-valve Chest).....	(1)...	30KC44	.66
" (30KC4 to Tension-arm Piston).....	(1)...	30KC45	.18
" (Reversing Valve to 36KB1 left).....	(1)...	30KC46	.35
" (29KC15 to 28KC2).....	(1)...	30KC47	.63
" (.0005 Justifying Piston to 29KC15).....	(1)...	30KC48	.54
" (28KC2 to 1KB2K).....	(1)...	30KC49	.39
" (Reversing Valve to 36KB1 right).....	(1)...	30KC50	.27
" (Justifying Space Piston to Justifying-scale-pointer Piston).....	(1)...	30KC51	.45
" (Tension-arm Piston to Reversing-valve Chest).....	(1)...	30KC52	.57
" (Tension-arm Piston to Paper-feed-valve Chest).....	(1)...	30KC53	.30
" (Paper-feed-valve Chest to Paper-feed Driving Piston).....	(1)...	30KC54	.12
" (Paper-feed-valve Chest to Paper-feed Return Piston).....	(1)...	30KC55	.12
" (Space Switch Piston to Space Piston).....	(1)...	30KC56	.30
screw (4).....		30KC57	.07

PISTON-BLOCK BASE complete with above parts .... X30KC 40.28

NOTE: 30KC1K is assembled with 30KC2 to 30KC56 inclusive and cannot be furnished without these parts.  
Price assembled..... 40.00

PISTON LEVER (for first row of Links) (5).....	31KC1	.40
(for second row of Links) (5).....	31KC2	.40
(for third row of Links) (6).....	31KC3	.40
(for fourth row of Links) (5).....	31KC4	.40
(for fifth row of Links) (6).....	31KC5	.40

[Style D Keyboard] 24

# PISTON LEVER—Continued

(for sixth row of Links) (6).....	31KC6	.40
fulcrum rod (2).....	31KC7	.10
“ “ bracket (left).....	31KC8	2.00
“ “ “ lever (for 29KC11).....	31KC9	.15
“ “ “ fulcrum pin.....	31KC10	.05
“ “ “ hook.....	31KC11	.10
“ “ “ (right).....	31KC12	2.00
“ “ “ screw (4).....	31KC13	.07
link (33).....	31KC14	.20
separator washer (33).....	31KC15	.05
stop bar (lower).....	31KC16	.40
“ “ screw (2).....	31KC17	.05
“ “ (upper) (2).....	31KC18	.20
“ “ screw (4).....	31KC19	.05

PISTON LEVER complete with above parts.....X31KC 27.33

PISTON LEVERS are listed according to the position of their LINKS. Thus, LEVERS 31KC1 have their LINKS nearest the front of the KEYBOARD.

Plunger, see Valve-bank Plunger..... 41KC12

PUNCH (regular) (29)..... 32KC1 .15  
(justifying) (2)..... 32KC2 .18

PUNCH complete with above parts.....X32KC 4.71

PUNCH BAR (front) (10)..... 33KC1 .30  
(middle) (11)..... 33KC2 .30  
(rear) (12)..... 33KC3 .30

PUNCH BAR complete with above parts.....X33KC 9.90

PUNCH BARS are listed according to the position of their lower end in the PISTON LEVERS 31KC1 to 31KC6 inclusive. Thus, PUNCH BARS 33KC1 have their lower end nearest the front of the KEYBOARD.

PUNCH-BAR LEVER (for operating 32KB1K and 32KB2)  
(regular) (14)..... 34KC1 .25  
(left hand) (bent)..... 34KC2 .25  
(right hand) (front end).....1.. 34KC3K .15  
( “ “ ) (rear end).....1.. 34KC4 .15  
( “ “ ) packing piece.....(1).. 34KC5 .05  
rivet (2).....(1).. 34KC6 .01  
bracket.....a34KC7 5.00  
“ plunger (for 32KB3)..... 34KC8 .20  
“ “ head (knurled).... 34KC9 .15  
“ “ sleeve nut..... 34KC10 .10  
“ “ spring..... 34KC11 .05  
“ screw (4)..... 34KC12 .05  
fulcrum rod..... 34KC13 .10  
liner (.0284" thick) (14).....a34KC14 .04  
“ separator.....a34KC15 .80  
“ “ screw (4).....a34KC16 .04

PUNCH-BAR LEVER complete with above parts.....X34KC 11.57

NOTE: 34KC3K is assembled with 34KC4, 34KC5 and 34KC6 and cannot be furnished without these parts.  
Price assembled.....

[Style D Keyboard] 25



PUNCH-BAR SEPARATOR (32).....	35KC1	.03
guide.....	35KC2	1.00
" screw ( 9-16" long) (top) (2).....	35KC3	.04
" (13-16" " ) (rear) (2).....	35KC4	.05
shoe (front).....	35KC5	.25
" screw (2).....	35KC6	.03
" (rear).....	35KC7	.60
" screw (2).....	35KC8	.05
PUNCH-BAR SEPARATOR complete with above parts.....	X35KC	3.15
Punch-bar-separator-shoe Thumb Screw, see Paper-tower- cover Thumb Screw.....	19KC3	
Reverse Shift Valve, see Piston-block Valve, for shifting the reverse.....	29KC15	
REVERSING VALVE.....	36KC1	.25
bell crank.....	1.. 36KC2K	
" " pin (for 36KC1).....(1).....	36KC3	.05
" " piston link.....	36KC4	.15
" " spring.....	36KC5	.05
" " post.....(1).....	36KC6	.03
" " stud (for 36KC4).....(1).....	a36KC7	.06
" " cotter.....(1).....	a36KC8	.00
" " washer.....(1).....	a36KC9	.03
REVERSING VALVE complete with above parts.....	X36KC	1.45
NOTE: 36KC2K is assembled with 36KC3, 36KC6, a36KC7, a36KC8 and a36KC9 and cannot be furnished without these parts. Price assembled.....		
REVERSING-VALVE BRACKET.....	1.. 37KC1K	
plug screw (brass) (2).....(1).....	37KC2	.02
screw (4).....	37KC3	.05
stud (for 36KC2K).....(1).....	37KC4	.07
" nut.....	37KC5	.04
" washer.....	37KC6	.03
REVERSING-VALVE BRACKET complete with above parts.....	X37KC	1.27
NOTE: 37KC1K is assembled with 37KC2 and 37KC4 and cannot be furnished without these parts. Price assembled.....		
TENSION-ARM CONNECTING ROD.....	38KC1	.12
forked eye (2).....	38KC2	.25
" " lock nut (2).....	38KC3	.04
" " oil pad (for lower Eye).....	a38KC6	.02
" " pin (2).....	38KC4	.05
" " cotter (4).....	38KC5	.00
TENSION-ARM CONNECTING ROD complete with above parts.....	X38KC	.82
TENSION-ARM-CONNECTING-ROD LEVER.....	1.. 39KC1K	
bracket.....	39KC2	.55
" oil pad (for 39KC8).....	a39KC11	.02
" screw (2).....	39KC3	.06
bushing (center).....	1.. 39KC4	
" ring.....	1.. 39KC5	

Feb. 20, 1911

Supersedes undated sheet of  
Monotype Parts and Accessor-  
ies folioed [D Keyboard] 27-28

**TENSION-ARM-CONNECTING-ROD LEVER—Continued**

bushing (end).....1..	39KC6	
“ ring.....1..	39KC7	
fulcrum pin.....	39KC8	.05
“ cotter (2).....	39KC9	.00
roller bearing (for a38KB12)	39KC10	.10

TENSION-ARM-CONNECTING-ROD LEVER complete with  
above parts.....X39KC 1.94

NOTE: 39KC1K is assembled with 39KC4, 39KC5,  
39KC6 and 39KC7 and these parts cannot be furnished  
separately. Price assembled..... 1.10

TENSION-ARM PISTON ROD.....1..	40KC1K	
forked eye.....	40KC2	.25
“ lock nut.....	40KC3	.04
“ pin.....	40KC4	.05
“ cotter (2).....	40KC5	.00
head.....1..	40KC6	

TENSION-ARM PISTON ROD complete with above parts..X40KC .49

NOTE: 40KC1K is assembled with 40KC6 and these  
parts cannot be furnished separately. Price assembled.. 15

*Trip-plate Catch, see Paper-feed-release-plate-link Bracket* b25KC1K

Valve, *see Paper Feed Valve*..... 10KC1

Valve, *see Piston-block Valve, for shifting the reverse*..... 29KC15

Valve, *see Reversing Valve*..... 36KC1

Valve, *see Valve-bank Plunger*..... 41KC12

VALVE BANK.....1..	41KC1K	
air filter.....2..	41KC2K	
“ cap.....2..	41KC3	
“ screw (8).....(2)..	41KC4	.06
“ frame (clamp for 41KC7) (4).....(2)..	41KC5	.15
“ screw (12).....(2)..	41KC6	.04
“ packing (muslin) (8) (per set).....(2)..	41KC7	.10
“ screen (4).....(2)..	41KC8	.05
“ screw (to 41KC1K) (long) (4).....	41KC9	.07
“ (to 41KC1K) (short) (9).....	41KC10	.06
bolt (to 30KC4) (10).....	41KC11	.06
plunger (35).....	41KC12	.05
“ bushing (for 41KC12) (35).....(1)..	41KC13	.10
“ return bar.....(3) (2)..	41KC15K	
“ bushing (2).....(3)..	41KC16	.10
“ plunger (2).....(2)..	41KC17	.10
“ bushing (2).....(2)..	41KC18	.10
“ cotter (2).....(2)..	41KC19	.00
“ nut (2).....(2)..	41KC20	.04
“ spring (2).....(2)..	41KC21	.05
“ washer (2).....(2)..	41KC22	.03

VALVE BANK complete with above parts.....X41KC 25.22

NOTE: 41KC1K is assembled with 41KC13 and  
cannot be furnished without these parts. Price assem-  
bled..... 10.50

NOTE: 41KC2K is assembled with 41KC3 to 41KC8  
inclusive, 41KC15K, and 41KC17 to 41KC22 inclusive



and cannot be furnished without these parts. Price assembled.....

11.55

NOTE: 41KC15K is assembled with 41KC16 and cannot be furnished without these parts. Price assembled.....

1.06

For Keyboards 3851 and following order: Improvement No. 2

VALVE BANK.....	1..a41KC1K	
air filter.....	2..a41KC2K	
oil pipe (2).....	a41KC24	.11
cap (2).....	a41KC25	.04
plunger return bar.....	(3) (2)..a41KC15K	
" " " bushing (2).....	(3).....a41KC16	.10
" " " plunger (2).....	(3).....a41KC17	.10
" " " cotter (2).....	(3).....41KC19	.00
" " " oil pad.....	(3).....a41KC23	.11

VALVE BANK complete with parts a41KC1K, a41KC2K, 41KC9, 41KC10, 41KC11, a41KC24, a41KC25, and 41KC12.....Xa41KC 25.52

NOTE: a41KC1K is assembled with 41KC13 and cannot be furnished without these parts. Price assembled..... 10.50

NOTE: a41KC2K is assembled with 41KC3, 41KC4, 41KC5, 41KC6, 41KC7, 41KC8, a41KC15K, 41KC18, 41KC20, 41KC21, and 41KC22 and cannot be furnished without these parts. Price assembled 11.55

NOTE: a41KC15K is assembled with a41KC16, a41KC17, 41KC19, and a41KC23 and cannot be furnished without these parts. Price assembled..... 1.25

VALVE-BANK-AIR-FILTER VENT PIPE.....	42KC1	.10
coupling.....	42KC2	.05
elbow.....	42KC3	.05
" close nipple (1-8", iron).....	42KC4	.05
pet cock (1-8").....	42KC5	.60

VALVE-BANK-AIR-FILTER VENT PIPE complete with above parts.....X42KC .85

Paper Guide, follows Xa13KC..... 45KC1K

## Improvement No. 1

In effect on Keyboards 3601 and following.

When applied to your Keyboards fill in the following:

Applied to Keyboards Nos.

Date

Object: Improved shape of teeth on b26KB1K, a35KB1K and a38KB1K, and to reduce the wear on a29KB5 and a38KB12.

To equip Keyboards 3127 to 3600 inclusive with this improvement requires the following parts. These parts must be furnished together when ordered for the first time.

**SPECIAL PRICE:** To give our customers the benefit of our latest Improvement we will furnish the required parts of this Improvement, for any Keyboard not already equipped with them, at the Special Price of \$9.00.

UNIT RACK.....	1..b26KB1K	
NOTE: b26KB1K is assembled with 26KB2 and 26KB3 and cannot be furnished without these parts.		
Price assembled.....		1.40
UNIT-RACK SLIDE.....	1..a29KB1K	
stud (for a38KB12).....	a29KB5	.10
nut.....	a29KB6	.04
NOTE: a29KB1K is assembled with 29KB3 and 29KB4 and cannot be furnished without these parts.		
Price assembled.....		3.50
UNIT WHEEL complete.....	Xb35KB	5.00
UNIT-WHEEL PAWL .....	1..a38KB1K	
operating lever.....	1..a38KB12	
NOTE: a38KB1K is assembled with 38KB2, 38KB3, 38KB4, 38KB5, 38KB6, 38KB7, 38KB8, 38KB9, 38KB10, 38KB11, a38KB12 and a38KB13 and cannot be furnished without these parts. Price assembled....		
		5.75

To equip Keyboards 3127 to 3269 inclusive with this improvement requires, in addition to the above, the following new part:

UNIT-RACK ABUTMENT bracket.....	3..a27KB5K	
NOTE: a27KB5K is assembled with 27KB6 and cannot be furnished without this part. Price assembled....		1.00

On Keyboards 3127 to 3267 inclusive and 3269 in addition to the above, the new UNIT-WHEEL STANDARD a46KB1K and the UNIT-WHEEL-STANDARD CAP a46KB5 must be furnished, or else the old STANDARD 46KB1K and its CAP 46KB5 must be altered to use with the new style UNIT WHEEL Xb35KB. Directions for this alteration will be furnished when required.

[Style D Keyboard] 29



On Keyboards 3127 to 3350 inclusive it will be necessary to open out the holes in the UNIT-WHEEL STANDARD a46KB1K, for the UNIT-RACK-ABUTMENT-BRACKET STUDS 27KB7, to 9-32". The opening in the front of the UNIT-WHEEL STANDARD must also be extended upward to provide a clearance for the NUT a29KB6. Directions for these alterations will be furnished when required.

Feb. 20, 1911

Supersedes undated sheet of  
Monotype Parts and Accessor-  
ies folioed [D Keyboard] 31

## Improvement No. 2

In effect on Keyboards 3851 and following.

When applied to your Keyboards fill in the following:

Applied to Keyboards Nos.

Date

Object: Improved oiling facilities for the Valve-bank Plungers.

**SPECIAL EXCHANGE PRICE: For Keyboards 3127 to 3850 inclusive,** instead of furnishing a new VALVE BANK and AIR FILTER, we have arranged to alter the old style VALVE BANKS and AIR FILTERS to conform to this improvement. These alterations require special tools and fixtures and can be made only at our factory. In order not to delay our customers by having them send their VALVE BANKS to our factory for alteration, we will exchange a rebuilt VALVE BANK Xa41KC complete with all the parts of this improvement for the customer's old VALVE BANK X41KC complete at the Special Price of \$7.00.

VALVE BANK.....	1..a41KC1K	
air filter.....	2..a41KC2K	
oil pipe (2).....	a41KC24	.11
cap (2).....	a41KC25	.04
plunger return bar.....	(3)(2)..a41KC15K	
" " " bushing (2).....	(3).....a41KC16	.10
" " " plunger (2).....	(3).....a41KC17	.10
" " " cotter (2).....	(3).....41KC19	.00
" " " oil pad.....	(3).....a41KC23	.11
VALVE BANK complete with parts a41KC1K, a41KC2K, 41KC9, 41KC10, 41KC11, a41KC24, a41KC25, and 41KC12.....	Xa41KC	25.52
NOTE: a41KC1K is assembled with 41KC13 and cannot be furnished without these parts. Price assembled.....		10.50
NOTE: a41KC2K is assembled with 41KC3, 41KC4, 41KC5, 41KC6, 41KC7, 41KC8, a41KC15K, 41KC18, 41KC20, 41KC21, and 41KC22 and cannot be furnished without these parts. Price assembled.....		11.55
NOTE: a41KC15K is assembled with a41KC16, a41KC17, 41KC19, and a41KC23 and cannot be fur- nished without these parts. Price assembled.....		1.25

On Keyboards 3127 to 3850 inclusive two holes must be drilled in the PISTON-BLOCK BASE 30KC1K for the OIL PIPES a41KC24 and the re-entrant corner on the upper surface of the Base may need to be filed slightly to clear the left hand OIL PIPE a41KC24. These alterations can be made in the customer's plant. Tools and directions will be furnished for this when required.



THE FIRST PART OF THE REPORT IS A SUMMARY OF THE  
WORK DONE DURING THE YEAR. THE SECOND PART IS A  
DETAILED ACCOUNT OF THE WORK DONE DURING THE YEAR.

THE THIRD PART OF THE REPORT IS A SUMMARY OF THE  
WORK DONE DURING THE YEAR. THE FOURTH PART IS A  
DETAILED ACCOUNT OF THE WORK DONE DURING THE YEAR.

THE FIFTH PART OF THE REPORT IS A SUMMARY OF THE  
WORK DONE DURING THE YEAR. THE SIXTH PART IS A  
DETAILED ACCOUNT OF THE WORK DONE DURING THE YEAR.

THE SEVENTH PART OF THE REPORT IS A SUMMARY OF THE  
WORK DONE DURING THE YEAR. THE EIGHTH PART IS A  
DETAILED ACCOUNT OF THE WORK DONE DURING THE YEAR.

THE NINTH PART OF THE REPORT IS A SUMMARY OF THE  
WORK DONE DURING THE YEAR. THE TENTH PART IS A  
DETAILED ACCOUNT OF THE WORK DONE DURING THE YEAR.

THE ELEVENTH PART OF THE REPORT IS A SUMMARY OF THE  
WORK DONE DURING THE YEAR. THE TWELFTH PART IS A  
DETAILED ACCOUNT OF THE WORK DONE DURING THE YEAR.

THE THIRTEENTH PART OF THE REPORT IS A SUMMARY OF THE  
WORK DONE DURING THE YEAR. THE FOURTEENTH PART IS A  
DETAILED ACCOUNT OF THE WORK DONE DURING THE YEAR.

# The Mold

THE MOLD



## Mold Parts and Repairs to Molds

The Mold is the vital part of the Monotype; it is built with the greatest possible accuracy, and the errors in its construction do not exceed two ten-thousandths of an inch. To obtain such accuracy requires special tools and gages and workmanship of the highest order. In work of this character it is essential that the working parts of each Mold be fitted together and we therefore do not furnish these parts unless the Mold be returned to our factory to have them applied.

In the following price list the parts that can be applied without fitting are marked with an asterisk (*); these can be applied without returning the Mold to the factory and will be furnished on order.

It is to our mutual interest that Molds be as nearly perfect as possible; therefore we make no charge for fitting parts to Molds returned to our factory, charging only for the material furnished as per this price list.

Every Mold returned to us is thoroughly cleaned, adjusted and tested before being returned.

Price for cleaning, adjusting and testing.....\$2.50.

If a Mold be worn, through incorrect adjustment or failure to oil properly, it must be lapped to restore it to true. Price for lapping.....\$4.00.

If a Mold be cut, through failure to oil properly, it must be ground as well as lapped. Price for grinding and lapping .....\$6.00.

When a Mold is returned to us making type less than .917" high to paper we apply the necessary parts to restore its height unless specifically notified not to do so.

Because of the importance of returning Molds to our customers as promptly as possible we do not submit estimates for Mold repairs where the cost of overhauling the Mold is less than \$20.00, unless we are specifically instructed to do so.

## STYLE E MOLD

For casting in justified lines (with either high or low quads and spaces at the will of the operator) or as sorts any one point size from 5 to 12 point inclusive; also for casting both high and low quads and space material of the same point size and up to 12 points in width setways.

BASE PLATE.....	1ME	16.50
bushing (copper) (1-2" long).....	1ME8	.02
"    (copper) (11-16" long).....	1ME9	.02
front abutment.....*	1ME1	5.25
"    "    name plate.....*	1ME13	.15
"    "    screw (2).....*	1ME14	.03
"    "    packing block (under		
1ME1).....	1ME12	3.00
"    "    screw (3).....*	1ME2	.06
"    "    shoe.....*	1ME3	1.75
"    "    adjusting screw		
(left, blunt).....*	1ME4	.06
"    "    adjusting screw		
(right, pointed).....*	1ME11	.06
"    "    adjusting screw		
lock nut (2).....*	1ME5	.04
gate pusher cam.....	1ME6	.75
"    "    screw (3).....*	1ME7	.04
CROSS BLOCK.....	4ME	6.00
coupling.....†	4ME1	1.15
"    screw.....*	4ME2	.05
dowel (for 4ME11).....	4ME13	.10
gate block (adjustable).....	4ME9	13.50
"    "    adjusting screw.....*	4ME10	.04
"    "    screw (4) (from 4ME9).....*	4ME7	.05
"    "    (fixed).....	4ME11	13.50
"    "    oil pad (felt).....*	4ME18	.04
"    "    screw (4) (from 4ME11)....	4ME12	.05
"    "    pusher.....†	4ME3	1.50
MOLD BLADE (lower) (designate by point size).....	8ME	7.00
stop.....	3ME1	3.00
"    cap.....*	3ME7	.35
"    "    screw (2).....*	3ME2	.04

* Can be applied without returning Mold to factory.

[Style E Mold] 1



MOLD BLADE (upper) (designate by point size).....	9ME	2.00
carrier.....	9ME20	16.00
" shoe.....*	9ME3	.85
" " spring.....*	2ME38	.05
" latch.....1.*	9ME19M	
" fulcrum pin.....*	9ME1	.03
" " spring.....*	9ME4	.05
" " post.....(1).*	9ME2	.03
" pin (stop for 9ME).....*	9ME22	.03
" spring post.....*	9ME21	.02
rivet (long).....	9ME24	.01
" (short) (3).....	9ME23	.01

NOTE: 9ME19M is assembled with 9ME2 and cannot be furnished without this part. Price assembled 2.03

MOLD-BLADE-CARRIER GUIDE BLOCK (lower left		
guide for 9ME20).....*	13ME	.70
screw (2).....	13ME1	.03
washer (2).....*	13ME2	.03

MOLD-BLADE-CARRIER SIDE ABUTMENT (lower right		
guide for 9ME20).....	12ME	.40
screw (left).....	12ME3	.04
" (right).....	12ME1	.04
washer.....	12ME2	.03

MOLD-BLADE SHIELD.....	3ME5	2.50
screw (2).....*	3ME6	.04

MOLD-BLADE TOP GUIDE (upper right guide for 9ME)	3ME3	3.25
screw (2).....*	3ME4	.04

POINT BLOCK (designate by point size).....	7ME	.75
--------------------------------------------	-----	-----

TYPE BLOCK (adjustable) (5 to 12 point).....	2ME12	12.50
bushing (copper) (5-32" long).....	2ME14	.02
clamp bolt.....*	2ME22	.30
" nut.....*	2ME24	.07
" washer.....*	2ME23	.05
nick pin.....	2ME13	.15
" plug.....	2ME43	.10
oil pad.....*	2ME21	.04
plug (brass) (in top).....	2ME16	.02
" screw (brass) (4).....*	2ME11	.02
" (brass) (2) (in right end)....*	2ME20	.02
screw (from 2ME) (lower) (2).....*	2ME17	.05
" (from 1ME).....*	2ME19	.06
" (from 2ME) (rear) (2).....*	2ME18	.05

TYPE BLOCK (fixed) (5 to 8 point).....	2ME40	9.50
(9 to 12 point).....	2ME41	9.50
adjusting screw (2).....	2ME5	.04
bushing (copper) (3-32" long).....	2ME47	.02
" (copper) (1-4" long).....	2ME48	.02
cover plate.....	2ME35	.10
" screw (2).....*	2ME36	.03

* Can be applied without returning Mold to factory.

[Style E Mold] 2

TYPE BLOCK (fixed)—Continued

guide screw (for 9ME3).....*	2ME32	.07
“ “ adjusting screw.....*	2ME33	.03
“ “ “ lock nut.....*	2ME34	.04
plug screw (brass) (2).....*	2ME50	.02
“ (brass) (in bottom).....*	2ME25	.02
screw (from 1ME).....*	2ME10	.06
“ (from 2ME) (lower).....*	2ME8	.05
stop screw (stop for 2ME22).....*	2ME44	.03
screw (from 2ME) (rear).....*	2ME9	.05
TYPE-BLOCK SQUARING PLATE.....*	2ME	22.50
adjusting screw (4).....*	2ME1	.04
bushing (copper) (1-2" long).....*	2ME3	.02
“ (copper) (1-4" long).....*	2ME4	.02
“ (copper) (3-16" long) (3).....*	2ME46	.02
plug screw (2) (in ends).....*	2ME7	.02
“ (in back).....*	2ME11	.02
screw (from 1ME) (3).....*	2ME2	.05

* Can be applied without returning Mold to factory.  
[Style E Mold] 3



[27-19 E 1010] 2

* Can be shipped without retaining data to record.

схема (дом 1212) (3) .....	3ME3	'02
(в блок) .....	3ME14	'03
длин схема (3) (в блок) .....	3ME4	'03
(схема) (2-12, блок) (2) .....	3ME10	'03
(схема) (1-4, блок) .....	3ME4	'03
распредел (схема) (1-3, блок) .....	3ME3	'03
сделанный схема (4) .....	3ME1	'01
1212-блок 200v/100v 12v/2v .....	3ME	33'20
схема (дом 1212) (схем) .....	3ME0	'02
эроз схема (дом 101 3ME33) .....	3ME14	'03
(дом 1212) (схем) .....	3ME3	'02
схема (дом 1212) .....	3ME10	'02
(схем) (в блок) .....	3ME12	'03
длин схема (схем) (3) .....	3ME20	'03
" " блок на .....	3ME34	'01
" " делительный схема .....	3ME32	'01
влияние схема (101 3ME3) .....	3ME33	'01
1212-блок (101 3ME3) .....		

## STYLES Y AND Z MOLDS.

For casting sorts and high and low quads and space material. Pointways the range of the Style Y Mold is from 14 to 22 points inclusive and Style Z Mold from 24 to 36 points inclusive. Either Mold will cast up to 36 points inclusive setways.

This list of parts is for Molds for use with the Universal Type Carrier and does not apply to Molds 1Y to 21Y inclusive nor to Molds 1Z to 21Z inclusive which are for use with the Job Type Carrier.

BASE PLATE.....	1MS	18.50
front abutment.....	1M1	3.50
“ “ screw (3).....	* 1M2	.05
“ “ shoe.....	*a1M3	1.50
“ “ “ screw (right, blunt) ..	* 1M4	.06
“ “ “ (left, pointed) ..	*a1M11	.06
“ “ “ lock nut (2)....	* 1M5	.04
“ “ oil pad (felt).....	*a1M10	.05
“ “ “ box.....	*a1M8	.14
“ “ “ “ screw (2).....	*a1M9	.03

The earlier MOLDS have two blunt SCREWS 1M4 instead of one blunt and one pointed. When ordering SHOE a1M3 for the first time for one of these MOLDS the pointed SCREW a1M11 must also be ordered.

To apply the OIL-PAD BOX a1M8 to a MOLD not already equipped with it, requires that the BASE-PLATE FRONT ABUTMENT 1M1 be drilled and tapped to receive the two SCREWS a1M9. Directions for this will be furnished when required.

CROSS BLOCK.....	a4MS	10.00
coupling.....	* 4M1	1.15
“ screw.....	* 4M2	.05
dowel (for fixed Gate Block).....	4M13	.10
gate block (adjustable).....	a4MS9	5.25
“ “ adjusting screw.....	* 4M10	.04
“ “ (fixed).....	a4MS11	5.25
“ “ screw (4).....	* 4MS12	.05
“ pusher.....	*a4MS3	1.00
squaring plate.....	4M6	5.25
“ “ screw (to Cross Block) (3) ..	* 4M7	.04
“ “ “ (to Gate Blocks) (4) ..	* 4M8	.04

When a new COUPLING 4M1 is ordered, to be applied to a MOLD outside our factory, the old COUPLING must be sent in with the order. All MOLD parts are specially fitted by hand and we can in no other way be sure that the new COUPLING will fit.

* Can be applied without returning Mold to factory.

[Styles Y and Z Molds] 1



Gate Block, see Cross-block Gate Block.....	a4MS9	
Gate Pusher, see Cross-block Gate Pusher.....	a4MS3	
Jet Blade, see Cross-Block Gate Pusher.....	a4MS3	
Matrix Seat, see Type-block Matrix Seat.....	2MS6	

MOLD BLADE (high) (designated by point size).....	6MS	9.00
stop.....	3MS	1.00
" screw (2).....	*a3M2	.03

MOLD BLADE (low) (designated by point size).....	5MS	9.00
bridge (for Style Z Molds).....	5MS1	1.50
" plate.....	* 5MS2	.30
" screw (3).....	* 5MS3	.04

For Style Y Molds order:

MOLD BLADE bridge.....	5MY1	1.50
Other parts of the group are the same as the Style Z MOLD.		

For Molds without the separate Matrix Seat on the Adjustable Type Block 2MS12 order:

MOLD BLADE bridge (designated by point size).....	8MS	1.50
screw.....	* 8MS1	.05

Omit parts 5MS1, 5MS2 and 5MS3.

Mold-blade Point Block, see Point Block.....	7MS	
Mold-blade Support, see Type-block-squaring-plate Bearing Block.....	a2M30	

POINT BLOCK (for Mold Blade) (designated by point size).....	7MS	.75
adjusting screw.....	* 2MS22	.30
" nut.....	* 2M24	.05
" washer.....	* 2M23	.05

For Molds having Point-block Adjusting Screw 2MS22 with thread 13-16" long on the end taking the Nut 2M24 order:

POINT BLOCK adjusting screw washer.....	* 2MS23	.06
-----------------------------------------	---------	-----

This improved WASHER may be applied to MOLDS not already equipped with it if the POINT-BLOCK ADJUSTING SCREW 2MS22 be ordered at the same time.

TYPE BLOCK (fixed) (for Style Z Molds).....	2MS4	14.00
adjusting screw (2).....	2M5	.04
nick pin.....	2MS13	.25
" " key.....	2M14	.12
plug screw.....	* 2M11	.02
screw (from Base Plate) (3).....	2M10	.06
" (from Squaring Plate).....	2MS9	.05
" washer.....	2MS34	.03

For all Style Y Molds order:

TYPE BLOCK (fixed).....	2MY4	14.00
Other parts of the group are the same as the Style Z MOLD.		

* Can be applied without returning Mold to factory.  
[Styles Y and Z Molds] 2

TYPE BLOCK (adjustable).....	2MS12	17.50
matrix seat.....	2MS6	1.50
"    "    screw (3).....*	2MS7	.04
"    "    abutment.....	2MS32	.50
"    "    screw (2).....*	2MS33	.04
oil cup.....	* 2M16	.20
plug screw (brass) (3).....	* 2M20	.02
screw (from Base Plate) (3).....	* 2M19	.06
"    (from Squaring Plate) (2).....*	2MS18	.05
"    washer (5).....*	2MS35	.03

+++++ For Molds without the separate Matrix Seat on  
the Adjustable Type Block 2MS12 order: +++++

TYPE BLOCK (adjustable).....	a2MS12	17.50
plug screw (brass) (4).....*	2M20	.02
Omit parts 2MS6, 2MS7, 2MS32 and 2MS33.		

Type-block Bridge, for Mold Blade, see Mold-blade Bridge 5MS1

TYPE-BLOCK SQUARING PLATE.....	2MS	12.50
adjusting screw (4).....	2M1	.04
bearing block (for Mold Blade).....	a2M30	.25
screw (from Base Plate) (2).....	a2M2	.06

TYPE-BLOCK WATER BASE.....	2MS25	11.00
plug screw (brass) (2).....*	2M28	.02
screw (from Base Plate) (2).....	2MS29	.05
"    (from Squaring Plate) (3).....	2MS26	.06

Water Base, see Type-block Water Base..... 2MS25

* Can be applied without returning Mold to factory.

[Styles Y and Z Molds] 3





# Miscellaneous

MISCELLANEOUS



RECEIVED

RECEIVED



## MISCELLANEOUS PRICES

Miscellaneous Parts and Accessories for the Casting Machine, Keyboard and Compressor not listed in the regular Price Lists.

*Air Compressor, see Compressor.*

ASBESTOS CEMENT (for repairing packing of Metal Pot), per can . . . . . 1.25

BELT (56" long; from Motor on Cam Shaft side of Caster to Caster Pulley on machines not equipped with the Speed Regulating Attachment) . . . . . 1.25

BELT (88" long; from Motor on Melting Pot side of Caster to Caster Pulley on machines equipped with the Speed Regulating Attachment) . . . . . 2.00

BRUSH (for cleaning Keyboard and Casting Machine) . . . . . .10

*Button Clip, see Key-button Clip.*

CAM OILING ATTACHMENT, for the perfect lubrication of all CAMS on the CASTING MACHINE. Consists of OIL PAN, BRACKETS, SHELF, OIL GUARD, and necessary SCREWS, RIVETS, etc. Price complete . . . . . 10.00

CAM OILING ATTACHMENT TOOLS* (for applying the Attachment) (Are included in the Display Attachment Tools) . . . . . 5.00

NOTE: These tools are loaned, not sold. The customer will be charged but full credit will be made upon the return of the tools in good condition. All shipments of loan material must, of course, be made by express, and the customer pays transportation charges in both directions.

*NOTE: When the CAM OILING ATTACHMENT is applied to a CASTING MACHINE prior to No. 2647 there is required in addition to the CAM OILING ATTACHMENT TOOLS a special set of CAM-SHAFT-STAND CAPS, which see. The price of these CAPS is not included in the above price of CAM OILING ATTACHMENT TOOLS.

CAM-SHAFT-STAND CAPS (special set of four, including ten special big headed Screws, and forty Liners. Required for machines prior to No. 2647 in addition to the Display Attachment Tools when applying the Display Attachment or the Speed Regulating Attachment; also required for machines prior to No. 2647 in addition to the Cam Oiling Attachment Tools when applying the Cam Oiling Attachment) . . . . . 25.00

NOTE: This special set of CAPS is loaned, not sold. The customer will be charged but full credit will be made upon the return of the set in good condition. All shipments of loan material must, of course, be made by express, and the customer pays transportation charges in both directions.

[Miscellaneous] 1



CARD COPY HOLDER (adjustable, for holding filing cards of any size)..... 12.00

CARRYING FRAME ADJUSTING GAGE..... 5.00

*Caster Screw Driver, see Screw Driver, for Casting Machine.*  
*Caster Wrench, see Wrench, for Casting Machine.*

CASTING MACHINE INSTRUCTION BOOK..... 32.50

CASTING MACHINE PLATE BOOK..... .50

*Casting Machine Reamer, see Reamer.*

CELLULAR MATRIX CONE HOLE CLEANER..... 1.00

CENTERING-PIN ADJUSTING DEVICE TOOLS (for applying the device) 60.00

NOTE: These tools are loaned, not sold. The customer will be charged but full credit will be made upon the return of the tools in good condition. All shipments of loan material must, of course, be made by express, and the customer pays transportation charges in both directions.

COMPRESSOR (4 1-2" x 4 1-2", one cylinder, single acting, capacity 6 1-2 cu. ft. of free air per min. at 160 r.p.m., with Driving Pulley 24" diam. and 4 1-2" face)..... 91.00

gasket (rubber)..... (1)..... .85

grease cup (2)..... (1)..... .20

oil cup..... (1)..... .85

pet cock..... (1)..... .25

valve disk (2 extra with each Compressor)..... (1)..... 1.00

wrench..... (1)..... .25

COMPRESSOR, 4 1-2" x 4 1-2", one cylinder (complete)..... 91.00

NOTE: Prices of other repair parts furnished on request.

COMPRESSOR (6" x 6", one cylinder, single acting, capacity 15 1-2 cu. ft. of free air per min. at 160 r.p.m., with Driving Pulley 32 1-2" diam. and 5 1-2" face)..... 116.00

gasket (rubber)..... (1)..... 1.00

grease cup (2)..... (1)..... .25

oil cup..... (1)..... .85

pet cock..... (1)..... .25

valve disk (2 extra with each Compressor)..... (1)..... 1.00

wrench..... (1)..... .25

COMPRESSOR, 6" x 6", one cylinder (complete)..... 116.00

NOTE: Prices of other repair parts furnished on request.

COMPRESSOR (6" x 6", two cylinder, single acting, capacity 31 cu. ft. of free air per min. at 160 r.p.m., with Driving Pulley 32 1-2" diam. and 5 1-2" face)..... 173.00

gasket (rubber) (2)..... (1)..... 1.00

grease cup (4)..... (1)..... .25

oil cup (2)..... (1)..... .85

pet cock..... (1)..... .25

valve disk (2) (2 extra with each Compressor)..... (1)..... 1.00

wrench..... (1)..... .25

COMPRESSOR, 6" x 6", two cylinder (complete)..... 173.00

NOTE: Prices of other repair parts furnished on request.

[Miscellaneous] 2

CONDENSING TANK (complete with Coils and Float Valve) . . . . . 35.00

*Copy Holder, see Card Copy Holder.*

*Copy Holder, regular 10", see Style D Keyboard Price List, symbol 4KA1K.*

COPY HOLDER (20", for extra wide copy) (including Rollers and Frame) . . . . . 4.50  
binder screw . . . . . (1) . . . . . .12

COPY HOLDER (20") complete with above parts . . . . . 4.50

COPY HOLDER ROLLERS (10"), each . . . . . .40

COPY HOLDER ROLLERS (20"), each . . . . . .55

DISPLAY ATTACHMENT, enables the CASTING MACHINE to produce type from 14 to 36 point as sorts. Includes also the CAM OILING ATTACHMENT and SPEED REGULATING ATTACHMENT. Price complete (when furnished without the Display Molds) . . 125.00

DISPLAY ATTACHMENT TOOLS* (for applying the Attachment; also used for applying the Speed Regulating Attachment when this is furnished separately) . . . . . 30.00

NOTE: These tools are loaned, not sold. The customer will be charged but full credit will be made upon the return of the tools in good condition. All shipments of loan material must, of course, be made by express, and the customer pays transportation charges in both directions.

*NOTE: When the DISPLAY ATTACHMENT or SPEED REGULATING ATTACHMENT is applied to a CASTING MACHINE prior to No. 2647 there is required in addition to the DISPLAY ATTACHMENT TOOLS a special set of CAM-SHAFT-STAND CAPS, which see. The price of these CAPS is not included in the above price of DISPLAY ATTACHMENT TOOLS.

DRILL (1-4", for Pump Arm) . . . . . 1.25

DRILL (No. 30, for lower end of regular Nozzle and full length of Display Nozzle) . . . . . .07

DRILL (No. 50, for upper end of regular Nozzle) . . . . . .05

*Gage, see Line Gage.*

*Gage, see Pica Gage.*

*Gage, see Storage-tank Pressure Gage.*

GASOLINE BURNER (for Casting Machine)

These BURNERS are for liquid gasoline. We do not furnish supply tank, nor piping from supply tank to CASTER. The price of the GASOLINE BURNER outfit complete, consisting of GASOLINE BURNER complete, COPPER COIL, 1-8" IRON PIPE, 1-4" IRON PIPE, 1-4" IRON ELBOW, two 1-8" BRASS UNIONS, 1-4" to 1-8" IRON BUSHING, two 1-8" to .190" BRASS BUSHINGS, BURNER SUPPORT (rear), BURNER SUPPORT (front), RING (lower support for COIL), COIL SUPPORT (upper, front), COIL SUPPORT (upper, rear), and eight (3-16" x 32 th.) SCREWS, is . . 20.00

Price of the GASOLINE BURNER alone, without extra parts, is, each . . . . . 1.75

[Miscellaneous] 3



# GASOLINE GAS BURNER (for Casting Machine)

These BURNERS can be used only for gasoline gas generated by a gas machine for illuminating purposes. They cannot be used for burning liquid gasoline. The price of the GASOLINE GAS BURNER outfit complete, consisting of two GASOLINE GAS BURNERS (with NIPPLES for attaching RUBBER HOSE), one GASOLINE GAS BURNER STAND, with two SET SCREWS, and two SPECIAL COLLARS, is.....

14.80

Price of the GASOLINE GAS BURNER alone is, each..... 6.00

*Grease Cup, see Compressor Grease Cup.*

HOSE (for Vacuum Cleaner, or Air Blast) (per foot)..... .20

## KEROSENE BURNER (for Casting Machine)

The price of the KEROSENE BURNER outfit complete, consisting of BURNER, BRACKET, KEROSENE TANK, FOOT PUMP, six extra SCREENS, PIPING and HOSE CONNECTION, is.....

25.00

KEYBOARD COVER (for D Keyboard) (cloth)..... 1.25

KEYBOARD COVER (for DD Keyboard) (cloth)..... 2.25

*Keyboard Layout Card, see Table for Changing Pica Ems to Ems of Any Set.*

KEYBOARD OIL (per gallon, without Can)..... 1.00

KEYBOARD OIL (per pint, including Can)..... .20

KEYBOARD PLATE BOOK..... .50

*Keyboard Reamer, see Reamer.*

*Keyboard Screw Driver, see Screw Driver, for Keyboard.*

*Keyboard Wrench, see Wrench, for Keyboard.*

KEY-BUTTON CLIP (slips over the regular Key Button, for quickly changing the layout) (designate by character), each..... .05

KEY-BUTTON-CLIP LAYOUT BOARD (for holding the Clips when not in use on the Keyboard), each..... 2.50

LADLE (small, for Casting-machine Melting Pot)..... .15

LINE GAGE (for lining up after changing face or point size)..... 15.00

LINE STANDARD (designate by size)..... .50

LINE STANDARD (special .005" thick, for use under the regular Line Standards with faces which are .005" low line)..... .50

LINE-STANDARD CASE..... .75

LOW QUAD ATTACHMENT (to enable the Casting Machine to operate the Low-quad Composition Mold and produce composition with either high or low quads and spaces as desired).... 50.00

LOW QUAD ATTACHMENT TOOLS (for applying the Attachment, including the Unlatching Device)..... 90.00

NOTE: These tools are loaned, not sold. The customer will be charged but full credit will be made upon the return of the tools in good condition. All shipments of loan material must, of course, be made by express, and the customer pays transportation charges in both directions.

MATRIX BOX (wooden, with compartments for holding extra composition Matrices)..... .30

*Matrices, all styles, for prices see Cellular Matrix Specimen Book.*

MATRIX BOX (imitation leather, plush lined, for holding a font of Display Matrices)..... .50

METAL MOLD (not water cooled)..... 2.00

MOLD (Style E, regular composition)

Furnished in any one of the following point sizes: 5, 5 1-2, 6, 7, 8, 9, 10, 11, and 12 points. Used for composition with either high or low quads and spaces at the will of the operator, also for casting sorts and both high and low quads and space material. Price per MOLD..... 150.00

MOLD (Style ES)

Furnished in any one of the following point sizes: 5, 5 1-2, 6, 7, 8, 9, 10, 11, and 12 points. Used for composition with high spaces and quads only. Similar to Style E MOLD except that it has a single BLADE and cannot therefore cast low quads or spaces. Price per MOLD..... 140.00

MOLD (Style VE)

Made adjustable to take MOLD BLADES of any point size from 5 to 12 points inclusive. The high and low BLADES of the same point size are carried in the MOLD together and cannot be furnished separately. Type and high and low quads and spaces of any given point size can be cast without exchanging MOLD BLADES. This MOLD is for casting sorts only and cannot be used for composition. The BLADES regularly furnished are 6, 8, 10, and 12 point but BLADES of any point size between the limits of 5 and 12 points inclusive can be furnished on order. Price of MOLD equipped with high and low MOLD BLADES of any one point size within the capacity of the MOLD..... 135.00

Additional MOLD BLADES for Style VE MOLD in any point size between the limits of 5 and 12 points inclusive, consisting of high BLADE, low BLADE, POINT BLOCK, and MOLD-BLADE STOP. Price, per point size, complete..... 20.00

MOLD (Style Y)

Made adjustable to take MOLD BLADES, either high or low, of any point size from 14 to 22 points inclusive. The high BLADES are for casting type and high quads and spaces. The low BLADES are for casting low quads and spaces and cannot be used for casting type. This MOLD is for casting sorts only and cannot be used for composition. The BLADES regularly furnished are 14, 18, and 20 point. Price of MOLD equipped with one BLADE, either high or low as ordered, for casting any one of the above regular point sizes..... 125.00

Additional MOLD BLADES for Style Y MOLD, either high or low as ordered, in 14, 18, or 20 point size, price per BLADE, complete with POINT BLOCK and MOLD-BLADE STOP..... 10.00

Additional MOLD BLADES for Style Y MOLD, either high or low as ordered, in any point size between the limits of 14 and 22 points inclusive (not included in the above regular sizes) will be made to order. Price, per BLADE, complete with POINT BLOCK and MOLD-BLADE STOP..... 12.00



## MOLD (Style Z)

Similar to Style Y MOLD except that the Z MOLD is adjustable from 24 to 36 points inclusive. The BLADES regularly furnished are 24, 30, and 36 point. Price of MOLD equipped with one BLADE, either high or low as ordered, for casting any one of the above regular point sizes. . . . . 125.00

Additional MOLD BLADES for Style Z MOLD, either high or low as ordered, in 24, 30, or 36 point size. Price, per BLADE, complete with POINT BLOCK and MOLD-BLADE STOP. . . . . 10.00

Additional MOLD BLADES for Style Z MOLD, either high or low as ordered, in any point size between the limits of 24 and 36 points inclusive (not included in the above regular sizes) will be made to order. Price, per BLADE, complete with POINT BLOCK and MOLD-BLADE STOP. . . . . 12.00

MOLD OILER 21M (complete with Sleeve a22M for supporting the Oiler when not in use). . . . . 4.50

MOLD-OILER SUPPORTING SLEEVE a22M (for supporting the Oiler when not in use. One furnished with each Mold Oiler without extra charge). . . . . .30

MOLD PACKING PIECE 16M (.005", .010", or .015" thick as ordered). . . . . .75

NOTE: These PACKING PIECES are for use under MOLDS which have to be ground in repairing so that their over-all height is below standard. The use of this PACKING PIECE obviates the necessity of changing the BRIDGE setting for these MOLDS.

MONOTYPE OIL (for the Casting Machine) (per gallon, without Can)  
(f. o. b. Philadelphia Office) . . . . . .50  
{ " New York " } . . . . . .60  
{ " Boston " } . . . . . .60  
{ " Chicago " } . . . . . .60  
{ " San Francisco " } . . . . . .75

*Monotype-oil Can, see Oil Can.*

MONOTYPE PAINT, for touching up worn or scarred places on the machines, painting pipes, etc., per can. . . . . .50

*Motor Belt, see Belt.*

MOTOR BRACKET (for Motor on Cam Shaft side of Caster) (See note) . . . . . 6.75  
bolt (3-8" x 1 3-4") (4) . . . . . .15  
fibre bushing (4) . . . . . .07  
" washer (large) (4) . . . . . .08  
" " (small) (4) . . . . . .05  
screw (1-2" x 1 5-8") . . . . . .18  
" (1-2" x 2 3-4") . . . . . .22  
" (1-2" x 3 1-4") . . . . . .25  
washer (steel) (4) . . . . . .05

MOTOR BRACKET complete with above parts. . . . . 9.00

NOTE: This style MOTOR BRACKET is used when the CASTING MACHINE does not have the SPEED REGULATING ATTACHMENT or the DISPLAY ATTACHMENT. It attaches to the CAM SHAFT side of the CASTING MACHINE. It is regularly supplied for the General Electric 3-4-3-8 HP C.Q. Motor. If required for any other style Motor, write to Philadelphia for quotation.

[Miscellaneous] 6

# MOTOR BRACKET (for Motor on Metal Pot side of Caster) (See note)

bolt (from Bracket to 1E) (2)	1..	3.00
" washer (rubber; between Bracket and 1E) (2)	..	.09
" washer (steel; on top of Bracket) (2)	..	.15
" (from Motor to Bracket) (4)	..	.05
" nut (4)	..	.09
" sleeve (fibre; in Motor Base) (4)	..	.06
" washer (fibre; small; above Motor Base) (4)	..	.07
" washer (fibre; large; between Motor and Bracket) (4)	..	.05
" washer (steel; beneath Bracket) (4)	..	.08
support.....	(1)	.05

MOTOR BRACKET complete with above parts..... 5.18

NOTE: This style MOTOR BRACKET is required when the CASTER is equipped with SPEED REGULATING ATTACHMENT. It can be supplied for General Electric 3-4—3-8 HP C.O. and 1-2—1-4 HP C.O. Motors and for Crocker-Wheeler 2-5 HP Motors. Be sure to specify on the order the Motor to be used, as the BRACKETS can be used only with the style Motor for which they are designed.

MOTOR EQUIPMENT, including special slow-speed MOTOR with ARMATURE PULLEY and BELT TIGHTENER; MOTOR BRACKET (complete); STARTING and REGULATING RHEOSTAT; and endless BELT. Price, complete.....

75.00

NOTE: For prices on individual parts of this equipment see alphabetical list.

Nozzle Drill, see Drill, for Nozzle.

Oil, see Keyboard Oil.

Oil, see Monotype Oil.

OIL CAN (10 gallon, for shipping and storing)..... 1.00

OIL CAN (5 gallon, for shipping and storing)..... .70

OIL CAN (2 gallon, for shipping and storing)..... .40

OIL CAN (1 gallon, for shipping and storing)..... .25

Oil Cup, for Compressor, see Compressor Oil Cup.

Oil Cup, see Mold Oiler.

OILING CAN (large, copper)..... .75

OILING CAN (small, zinc)..... .10

Paint, see Monotype Paint.

Pet Cock, for Storage Tank, see Storage-tank Pet Cock.

PICA GAGE (for setting column width on the Casting Machine)

20 picas long	..	.25
10 " "	..	.25
6 " "	..	.25
5 " "	..	.25
4 " "	..	.25
3 " "	..	.25
2 " "	..	.25

[Miscellaneous] 7



<b>PICA GAGE—Continued.</b>	
1-2 picas long .....	.25
board .....	.25
squeeze standards (includes no squeeze, 1-2, 1, 1 1-2 and 2 point feelers) .....	.75
PICA GAGE complete with above parts .....	3.00
PIPE PLIERS (10") .....	.45
<i>Pressure Gage, see Storage-tank Pressure Gage.</i>	
<i>Pump-arm Drill, see Drill, for Pump Arm.</i>	
<b>REAMER</b>	
No. 000 (used for Dowel 13KC3, 18KC4, 18KC12, 61F3, and 57S8) .....	1.45
No. 0 (used for Dowel 21B4, 37F2, 1G10, 128S3, 128S5, and 145S3) .....	1.00
No. 2 (used for Dowel 10A2 and 17C1) .....	1.25
No. 5 (used for Dowel 4B1, 9B2, 15B2, 3C3, 4C1, 3D4, 51F1, and 51F2) .....	2.00
No. 6 (used for Dowel 3B1, 3B2, 3C1, 3C2, 16F1, 31F1, and 19H2) .....	2.25
<b>RHEOSTAT (combined starting and regulating, for 3-4—3-8 C.Q. General Electric Motors)</b>	
110 volt .....	6.90
220 " .....	6.90
550 " .....	7.50
<i>Safety Valve, see Storage-tank Safety Valve.</i>	
<b>SCREW DRIVER (for Casting Machine)</b>	
(3" x 3-16") .....	.18
(6" x 5-16") .....	.50
(10" x 3-8") .....	1.00
SCREW DRIVER (for Casting Machine) complete set as above...	1.68
NOTE: SCREW DRIVERS for the CASTING MACHINE are listed according to the length of blade and breadth of point.	
<b>SCREW DRIVER (for Keyboard)</b>	
(1-8") .....	.35
(5-32") .....	.35
(1-4") .....	.35
(3-8") .....	.40
SCREW DRIVER (for Keyboard) complete set as above .....	1.45
NOTE: SCREW DRIVERS for the KEYBOARD are listed according to the breadth of point.	
SIXTY PICA ATTACHMENT (to enable the Casting Machine to handle any measure up to 60 picas inclusive) complete .....	100.00
SIXTY PICA ATTACHMENT TOOLS (for applying the Attachment) ...	25.00
NOTE: These tools are loaned, not sold. The customer will be charged but full credit will be made upon the return of the tools in good condition. All shipments of loan material must, of course, be made by express, and the customer pays transportation charges in both directions.	
SKIMMER (small, for Casting-machine Melting Pot) .....	.25

[Miscellaneous] 8

Sort Box, see Matrix Box.

SPEED REGULATING ATTACHMENT (gives 19 speeds varying by small increments from 9 to 140 r.p.m. on the Casting Machine) complete. . . . . 125.00

Speed Regulating Attachment Tools, same as Display Attachment Tools, which see.

STORAGE TANK. . . . . 8.00  
pet cock. . . . . (1) . . . . . .30  
pressure gage. . . . . . . . . . . 2.00  
safety valve. . . . . . . . . . . 1.50  
" " weight. . . . . (2) . . . . . .30

STORAGE TANK complete with above parts. . . . . 11.50

TABLE FOR CHANGING PICA EMS TO EMS OF ANY SET (mounted and varnished) . . . . . .25

Tank, see Condensing Tank.

Tank, see Storage Tank.

Tools, for applying the Cam Oiling Attachment, see Cam Oiling Attachment Tools.

Tools, for applying the Centering-pin Adjusting Device, see Centering-pin Adjusting Device Tools.

Tools, for applying the Display Attachment, see Display Attachment Tools.

Tools, for applying the Low Quad Attachment, see Low Quad Attachment Tools.

Tools, for applying the new style Unit Wheel, see Unit Wheel Tools.

Tools, for applying the Sixty Pica Attachment, see Sixty Pica Attachment Tools.

Tools, for applying the Speed Regulating Attachment, see Display Attachment Tools.

TYPEWRITER ATTACHMENT, for Style D or DD KEYBOARDS, consisting of a special UNIT-RACK-STOP-BAR CASE designated by the word "TYPEWRITER" stamped on its CAP, complete. . . . . 5.00

UNIT WHEEL TOOLS (for applying Keyboard Improvement No. 1) (See Style D Keyboard price list, page 29) . . . . . 12.00

NOTE: These tools are loaned, not sold. The customer will be charged but full credit will be made upon the return of the tools in good condition. All shipments of loan material must, of course, be made by express, and the customer pays transportation charges in both directions.

VACUUM KEYBOARD CLEANER, for quickly and neatly removing the paper punchings; may also be used as an Air Blast for cleaning purposes. . . . . 3.00

Valve Disk, see Compressor Valve Disk.

WRENCH (for Casting Machine)  
No. 81 (1 1-16") . . . . . .34  
No. 82 (5-16" x 13-32") . . . . . .13  
No. 83 (13-32" x 1-2") (Galley Wrench) . . . . . .16  
No. 84 (5-8" x 3-4") . . . . . .22  
No. 85 (13-16" x 7-8") . . . . . .32  
No. 86 (7-32" sq. x 1-2" hex.) (Box Wrench) . . . . . .12

[Miscellaneous] 9



# WRENCH (for Casting Machine)—Continued.

No. 87 (Spanner, medium, 1" diam.)	17
No. 88 (Spanner, small, 3-4" diam.) (2)	16
No. 89 (Spanner, large, 1 1-8" diam.) (2)	18
No. 810 (9-32" x 5-16")	07
No. 827 (Pin Wrench, 15 degrees bend)	13
No. 828 (Pin Wrench, 60 degrees bend)	13
No. 829 (Spanner, extra large, 1 1-2" diam.)	60

WRENCH (for Casting Machine) complete set. 3.07

NOTE: The dimensions give the size of the openings between the jaws; that is, the size NUT, measured across the flats, the WRENCH will fit. Where one dimension only is given, the WRENCH is single ended; where two dimensions are given, the WRENCH is double ended. All WRENCHES are open ended unless otherwise specified.

# WRENCH (for Style D and DD Keyboards)

No. 82 (5-16" x 13-32")	13
No. 83 (13-32" x 1-2")	16
No. 810 (9-32" x 5-16")	07
No. 824 (3-4" box x 5-8" open)	35
No. 825 (7-32")	20

WRENCH (for Keyboard) complete set. 91

NOTE: The dimensions give the size of the openings between the jaws; that is, the size NUT, measured across the flats, the WRENCH will fit. Where one dimension only is given, the WRENCH is single ended; where two dimensions are given, the WRENCH is double ended. All WRENCHES are open ended unless otherwise specified.

WRENCH (for Mold) No. 826. 15

